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Legal XML and Standards for the Legal Industry

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LEGAL XML AND STANDARDS FOR THE LEGAL INDUSTRY

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I. INTRODUCTION

FOUNDED in November 1998 with seventeen members, Legal XML[1] is a non-profit organization comprised of over 665[2] volunteer members from private industry, non-profit organizations, government, and academia. The mission of Legal XML is to develop open, non-proprietary technical standards for legal documents and related applications.

The building block for Legal XML standards is e**X**tensible **M**arkup **L**anguage ("XML"). XML is a technical standard developed by the World Wide Web Consortium ("W3C").[3] Since early 1998, when the W3C recommended XML 1.0 as a standard, XML and related W3C stan-

1. Legal XML (visited Sept. 26, 2000) <http://www.legalxml.org/>.
2. As of the time of this writing, Legal XML membership is growing at an average of fifty new members a month. For a dynamically updated membership count, please see Legal XML, *Legal XML Overview* (visited Sept. 26, 2000) <http://www.legalxml.org/Information/LegalXMLOverview.asp>.
3. World Wide Web Consortium (visited Sept. 26, 2000) <http://www.w3.org>.

dards have gained widespread acceptance in the technical community as "smart," web-based information management technologies.

This article is about XML, the technology, and Legal XML, the organization. This article is also about the need for technical standards in the legal industry. In this article, you will learn about smart technology and difficult "techno-legal" problems and why you, a legal professional, should care. Parts II and III explain XML, the technology, and tell about its promises and problems. Part IV provides details about Legal XML, the organization and explains how technical standards for the legal industry will help solve some of XML's problems, which is why Legal XML exists. Part IV also details Legal XML's scope, governance, and intellectual property policy. Part V distinguishes what Legal XML is attempting to standardize from what it is not attempting to standardize. Part VI tells Legal XML's history. Part VII surveys Legal XML's problems and the prospects for future technical standards in the legal industry. Finally, Part VIII explains why and how you can and should involve yourself in the process.

II. WHAT IS XML?

A. XML IS A TOOL, NOT A RELIGION; IT CAN BE USED BOTH WISELY AND UNWISELY

It helps to explain what XML *is not* before explaining what XML *is*. XML is not a religion, although advocates of the technology, including this author, are sometimes considered rather zealous. XML is not a solution to all the world's problems. XML is not a solution to all electronic commerce problems. XML is not a solution to all legal technology problems. Indeed, XML, if not used properly, has the potential to cause a lot of problems rather than solve them.

XML, simply, is a technical tool. It is an information management tool. To be sure, XML is a very cool, powerful tool. But, it is a tool among many other information management tools, including databases and HTML. XML does not replace databases or HTML. It augments them.

An unfortunate side effect of XML "gospel" is the misconception that all products that use XML are good products. In fact, tools can be used wisely and unwisely, depending on the knowledge and motives of the user. For instance, a hammer can be used to drive nails and construct a house—a social purpose. Likewise, it can be used to hit someone—an antisocial purpose. XML, as an information management tool, is no different.

Indeed, XML can be used for social and antisocial purposes. XML's power can be used to manage and share information. On the other hand, its power can be used to trap information and hinder its usability. The point is, it is a mistake to conclude, just because a label on a product says "XML," that the product is a good product, that it is good for the legal

business you conduct, the legal industry generally, or even citizens and society.

B. Electronic Document Formats

Understanding XML is easier if one first grasps the characteristics and varieties of electronic document formats. A "document format" is a technical "grammar" (or "syntax") that defines an electronic document. There are three types of information that can be captured by electronic document formats and three classes of formats.

The types of information that can be captured in electronic documents[4] are:

Formatting: Formatting is how text in a document looks to the reader. For instance, "bold," "italic," and "underline" are all types of formatting.

Logical Structure: Logical structure is the relationship of grammatical parts of a document to other parts of the document. For instance, a book has chapters; chapters have titles, headings and subheadings; headings and subheadings have paragraphs; paragraphs have sentences. The fact that information in a subheading appears beneath information in a heading tells the reader that the subheading is a logical subset of the heading and not the other way around. This is an important organizational cue that helps a reader better understand the information. People often confuse formatting with logical structure because formatting is often used to highlight logical structure (as has been done in this text, assuming the printer followed the styles of the author). The three most important types of logical structures in documents are: (1) tables; (2) outlines (also called lists); and (3) paragraphs. In the law, these structures are often given specific names, such as clauses or sections, but the logical structure is the same.

Data: Data are pieces of information, such as "plaintiff," "defendant," "name", and "address." Data are often stuffed into databases so that is has some structure and can be indexed, sorted, and retrieved easily. Data also appears in documents. In legal documents, pieces of data are either randomly sprinkled throughout the document (i.e., "unstructured text"[5])

4. Ravi Kalakota & Andrew Whinston, Frontiers of Electronic Commerce 768 (Reading, MA: Addison Wesley, 1996).

5. Written prose (i.e., paragraphs, tables, outlines) in legal and other types of documents is often considered "unstructured" text. From a "database" perspective, prose may seem to have little structure. However, from a linguistic perspective, prose is actually highly structured in that it is composed of grammatical constructs that humans commonly refer to as "language." The complexity of human language and its constant change over time is probably the reason why some consider prose "unstructured" text. This author uses the term here because it is a common term. However, the reader should note that "unstructured text" is not unstructured; rather it is highly structured, but so structured and susceptible to change that an easily definable data model is difficult if not impossible to devise without looking to a particular language's grammar. This author is fluent in both English and German and has rigorously studied the grammars of both languages as well as some French.

or structured at the top or bottom of a document. For example, a caption on a pleading is an example of "data" that also has "logical structure." Thus, in the United States we always know that "Plaintiff" comes before "Defendant" in a caption on a pleading, whereas "Plaintiff" and "Defendant" can also be sprinkled throughout paragraphs, tables, and outlines (logical structure) in a document.

The classes of document formats[6] are:

Page Description Formats: Page description formats are formats that strictly capture a document's layout (a combination of formatting and logical structure). Examples are Adobe's Portable Document Format (PDF) and Word Perfect's Envoy format. Images, such as TIFFs, are also page descriptions formats. Page description formats can be either binary[7] or text-based.

Mark-up-based Formats: Mark-up-based formats may capture formatting, but are intended to capture data and logical structure. Mark-up-based languages are formats that capture logical structure and data by surrounding text within "tags." Mark-up-based formats usually use "stylesheets" to capture formatting. Hypertext Markup Language ("HTML") (the format used to create web pages) is an example of a mark-up format. However, HTML does not separate formatting from logical structure. It cannot, therefore, capture a rich variety of data. Mark-up formats are usually text-based formats.

Compound Document Formats: Compound document formats are formats that capture a mix of formatting and logical structure. Examples of compound document formats are Rich Text Format (RTF), Microsoft Word, and Word Perfect. Compound document formats can be either binary or text-based. For instance, RTF is text-based, while Word and Word Perfect are binary. Compound document formats are different than page description formats because they do not strictly capture layout. For instance, if you import an RTF document created in Microsoft Word into Word Perfect, the formatting will often change. Likewise, the same document opened in different installations of Microsoft Word, even if it is the same version of the program, will sometimes have different formatting (i.e., pages, lines, and fonts sometimes change).

XML is not a document format, although there are document formats created from XML. Rather, XML is a grammar (or syntax) for defining *mark-up-based* document formats.

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6. KALAKOTA, *supra* note 4, at 769.

7. "Binary" formats are machine, rather than human, readable formats made of electronic bits and bytes.

C. XML TERMINOLOGY

XML and related standards[8] are used to create "document formats" by combining customized "elements" and, optionally, "stylesheets." XML elements look similar to Hypertext Markup Language ("HTML") elements. For example, the following is an HTML element:

<FONT Size='12'>I agree to give you a peppercorn in exchange for your services.</FONT>

An element is a combination of a "begin tag" and "end tag" and everything in between the two tags.[9] Some elements may only contain text (called "PC data").[10] Some elements may contain other elements (i.e., tags and text).[11] Elements may also be empty (i.e., contain no text).[12] Elements may have "attributes," which are assigned "values."[13] In the example above, the element name is "FONT." The "FONT" element has an attribute named "Size" with an attribute value of "12." Elements are nested within other elements to create a hierarchy of "marked-up" text. A complete hierarchy of marked-up text is an "XML document."[14] The following is an example of a simple XML document with legal elements.

```
<Legal>
  <Contract>
    <Clause>
      <Paragraph>
      I agree to give you a peppercorn in exchange for your
      services.
      </Paragraph>
    </Clause>
  </Contract>
</Legal>
```

HTML is a standardized set of about 90 pre-defined elements that web designers use to create HTML documents (web pages).[15] The problem with HTML is that it is a *dumb* "document format."[16] Indeed, a signifi-

8. See *infra*, Part II.G. for a list of related XML standards. *See also* World Wide Web Consortium *supra*, note 3.

9. W3C, *Extensible Markup Language (XML 1.0)* § 3.2 (visited Sept. 26, 2000) <http://www.w3.org/TR/1998/REC-xml-19980210.html> [hereinafter *XML 1.0*].

10. *See id.* § 2.4 at <http://www.w3.org/TR/1998/REC-xml-19980210#NT-CharData>. "PCData" stands for "processable character data." "PC" does not mean "personal computer."

11. *See id.* § 3.2 at <http://.www.w3.org/TR/1998/REC-xml-19980210#NT-content>.

12. *See id.* § 3.1 at <http://www.w3.org/TR/1998/REC-xml-19980210#NT-EmptyElemTag>.

13. *See id.* § 3.3 at <http://www.w3.org/TR/1998/REC-xml-19980210#NT-Attribute>.

14. *See id.* § 2 at <http://www.w3.org/TR/1998/REC-xml-19980210#sec-documents>. Note, an "XML document" should not be confused with an "electronic document." Generally, an XML document, from a human and legal perspective is not a complete document, unless it includes a stylesheet. That is, the combination of an XML document and a stylesheet corresponds to an electronic document and most closely to the traditional notion of a paper document.

15. *See* W3C, *HTML 4.01 Specification* (visited Sept. 26, 2000) <http://www.w3.org/TR/html4/index/elements>.

16. Winchel "Todd" Vincent, III, *What Is the Best Format for E-CT-Filing?*, (visited Sept. 26, 2000) <http://gsulaw.gsu.edu/gsuecp/CourtFilings/DocumentFormat/>.

cant disadvantage of HTML is that most of its pre-defined set of tags do not have a meaningful relationship to the text within them. For example, the following HTML element, with the addition of the "color" attribute, would look colorful in a web browser:

<FONT Color='Red'>I agree to give you a peppercorn in exchange for your services.</FONT>

However, the HTML <FONT> element does not provide meaningful information to a reader, a search engine, or any other information system about the meaning of the text within the element. A web browser knows it should display the text in red, but it knows nothing else about the text. More meaningful mark-up would look like this:

<Contract Color='Red'>I agree to give you a peppercorn in exchange for your services.</Contract>

Unfortunately, custom elements such as <Contract> are not allowed in HTML because they are not defined by the HTML standard. XML, unlike HTML, is not a set of defined elements. Rather, XML is a "grammar" (or "syntax") that can be *used to define any number of custom elements*. Using XML, the developers of document formats can create industry-specific (e.g., legal-specific) elements, such as <Contract>, <CourtFiling>, or <Transcript>, that can hold information important within their industry.

D. XML Document Type Definition (DTD)

A "document type definition" ("DTD") is a set of rules that define the type, number, and order of elements that may appear in an XML document.[17] Knowing all the rules that govern DTDs is more than a non-technical legal professional needs to know. It is useful to understand the basic mechanics, however, so one can read and understand DTDs and comment on related matters of legal substance. However, one does not need to know or remember the following unless there is a desire to build the technology.

The rules of a DTD are set out in "declarations."[18] The following is a set of declarations that define an "Address" document in XML:

```
<?xml version="1.0" ?>
<!DOCTYPE Address [
<!ELEMENT Address (Street+,City,State,PostalCode,Country)>
<!ELEMENT Street (#PCDATA)>
<!ELEMENT City (#PCDATA)>
<!ELEMENT State (#PCDATA)>
<!ELEMENT PostalCode (#PCDATA)>
<!ELEMENT Country (#PCDATA)>
]>
```

17. *See XML 1.0*, *supra* note 9, § 2.8 at <http://www.w3.org/TR/1998/REC-xml-19980210#sec-prolog-dtd>.

18. *See id.* at <http://www.w3.org/TR/1998/REC-xml-19980210#NT-markupdecl>.

The first declaration in the DTD is for the "Address" element. According to the declaration, the "Address" element may contain five other elements, namely, "Street," "City," "State," "PostalCode," and "Country." Each of these elements may contain "#PCDATA," which is text.[19] The "+" on the end of "Street" means there may be *one or more* "Street" elements within "Address."[20]

There are other rules used to define the number of elements that may appear in the document. Additionally, attributes, as shown above in the HTML example, may be specified in declarations corresponding to individual elements.[21] There are numerous other XML rules that are beyond the scope of this paper.[22]

E. WELL-FORMED XML

"Well-formed XML" is an XML document that follows the simple rules that (1) every document must have a single root element and (2) for every element there must be a "begin tag" and a corresponding "end tag" that does not overlap with other begin and end tags.[23] Note, elements (begin and end tag combinations) may be nested within other elements, but tags may not overlap.[24] For instance, the following is well-formed XML (that just happens to correspond to the "Address" DTD example above):

```
<Address>
<Street>2356 Peachtree Street</Street>
<Street>Suite 2000</Street>
<City>Atlanta</City>
<State>Georgia</State>
<PostalCode>30302</PostalCode>
<Country>U.S.A.</Country>
</Address>
```

This, however, is illegal according to the XML specification:

```
<Bold>This is some<Italics>bad</Bold> XML</Italics>.
```

It is possible, although not required, to "validate" well-formed XML by using a DTD.[25] Validating well-formed XML with a DTD means that the structure of the well-formed XML is checked by software to see if it matches the rules specified in the declarations of the DTD. If the well-formed XML does not conform to the DTD, then the software (if it conforms to the XML standard) will report an error.[26]

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19. *See id.* § 2.7 at <http://www.w3.org/TR/1998/REC-xml-19980210#syntax-syntax>.
20. *See id.* § 3.2.1 at <http://www.w3.org/TR/1998/REC-xml-19980210#sec-element-content>.
21. *See id.* § 3.3 at <http://www.w3.org/TR/1998/REC-xml-19980210#attdecls>.
22. *See generally XML 1.0*, *supra* note 9.
23. *See id.* § 4.3.2 at <http://www.w3.org/TR/1998/REC-xml-19980210#sec-well-formed>.
24. *See id.*
25. *See id.* § 5.1 at <http://www.w3.org/TR/1998/REC-xml-19980210#dt.valid>.
26. *See id.*

F. The Power of XML

The power of XML is the power it gives humans to define custom elements. Using XML, a document author (or web page designer) is no longer limited to the 90 elements defined by the HTML standard. Instead, new XML elements can be defined to create specific vocabularies. For instance, industry-specific legal elements can be defined for mark-up of legal information within legal documents.

To fully understand the power of XML it is important to distinguish *data* from *information*. It is also important to identify a few rules about the value of information. *Data* is any and all recorded knowledge everywhere, recorded now or in the future, whether in books, in files, or on computer harddrives.[27] Data is not valuable because data is not retrievable in a time that makes it feasible for humans to digest, either as a result of the data's volume or its chaotic state.[28] For instance, volumes of data may exist about a particular subject matter or a set of circumstances in a particular court case. However, a judge usually cannot wait several months to collect, sort, and digest all of the data from all of the places where the data exists. Because data is not digestible in a meaningful time, it is of no value to the judge in deciding the case.

Information, on the other hand, is *data* that is indexed, sorted, stored, and retrievable within a meaningful time. Information is valuable because it can be digested by a human in a meaningful time. The value of information can be stated as an equation:

$Information = accuracy/(storage time)(retrieval time)[29]

This equation can be expanded to what this author calls "Axioms for the Information Age:"[30]

Time

- Time equals money or quality of life.

Data

- Data is all recorded knowledge everywhere, whether in books, in files, or on computer harddrives.
- Data should never be inputted twice.
  - — Data should be captured electronically at its source.
  - — If not at its source, data should be captured as early as possible.
- Data has no value.

Information

- Information is data that is indexed, sorted, stored, and retrievable in a meaningful time.
- Information is valuable.
- Information loses its value in proportion to the time it takes to process and store it.

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27. *See* Winchel "Todd" Vincent, III, *Issues in Developing Electronic Court Filing Systems*, <http://gsulaw.gsu.edu/gsuecp/CourtFilings/WhitePaper/Issues.htm#InformationAge AssemblyLine>. This document is password protected. Email <winchel@mindspring.com> to gain access.

28. *See id.*

29. *See id.*

30. *See id.*

- Information loses its value in proportion to the time it takes to store and retrieve it.
  - — Information becomes data as storage or retrieval times increase.
  - — Information becomes data as its value decreases.
- Information loses its value if it is not accurate.
  - — Information loses its value if it cannot be verified.
  - — Information loses its value if it is not updated.
  - — Inaccurate information can create legal liability.
- Information can be recycled.
  - — Recycling information takes less time if information is in a standard, open, logical format.
  - — Recycling information is less expensive if information is in a standard, open, logical format.

The power of XML is that it is a tool that can change data to information. XML does this by making it possible for software to capture identifiable pieces of information, place the information into documents, and then "parse" (extract) information from documents automatically. In the "Address" example above, software could automatically pick out the postal code and other elements of the address without requiring human intervention. In the "Contract" example above, specific clauses of the contract could be automatically extracted, updated, organized, highlighted, and aggregated. This would not be true if all of the information were locked in paper documents or marked-up with HTML elements such as <FONT>,
, or <P>.

It does not follow from the analysis above that software will take the place of legal professionals or reduce billable hours for lawyers. What it does mean is that a whole new set of electronic tools can be, and are being, developed to help legal professionals manage information in documents so they can use their time more efficiently to provide higher quality legal services.

G. Ancillary XML Standards

XML 1.0 is the World Wide Web Consortium ("W3C") standard referred to when most people say "XML." There are, however, a number of ancillary and related XML standards either promulgated or under development at the W3C.[31] The large number of ancillary standards causes confusion, even for the experts, and takes away much of XML's promised simplicity. A detailed description of each of these standards is well beyond the scope of this paper. For those interested in exploring them, what follows is an outline with links to the XML standard and several other XML-related standards.

- XML 1.0:
  http://www.w3.org/XML/ (General Information)
  http://www.w3.org/TR/1998/REC-xml-19980210 (The Standard)

31. *See generally* World Wide Web Consortium, *supra* note 3; *see also The XML Cover Pages*, (visited Sept. 26, 2000) <http://www.oasis-open.org/cover/>.

- Stylesheets: Cascading Stylesheets (CSS) and eXtensiblve Stylesheet Language (XSL)
- CSS:
  http://www.w3.org/Style/CSS/
  http://www.w3.org/TR/REC-CSS1
  http://www.w3.org/TR/REC-CSS2/
- XSL:
  http://www.w3.org/Style/XSL/
  http://www.w3.org/TR/xsl/
- XSLT (XSL Transformations):
  http://www.w3.org/TR/xslt
- Namespaces:
  http://www.w3.org/TR/1999/REC-xml-names-19990114/
- XML-Schema:
  http://www.w3.org/XML/Activity#schema-wg
  http://www.w3.org/TR/NOTE-xml-schema-req
  http://www.w3.org/TR/xmlschema-1/
  http://www.w3.org/TR/xmlschema-2/
- XLink, XPath, and XPointer:
  http://www.w3.org/TR/xlink/
  http://www.w3.org/TR/xpath
  http://www.w3.org/TR/WD-xptr
- XML Signatures:
  http://www.w3.org/Signature/
- Document Object Model (DOM):
  http://www.w3.org/DOM/
  http://www.w3.org/TR/REC-DOM-Level-1/
- XForms:
  http://www.w3.org/MarkUp/Forms/

See the W3C's website for information on these and other standards.

III. THE PROBLEMS WITH XML

A. XML Is Potentially a "Tower of Babel"

The problem with XML is its power. Even though gaining the ability to create custom XML elements brings great potential for organizing and making sense of vast quantities of industry-specific information (being dumped onto the Internet every day), this very ability threatens to bring with it an informational XML "Tower of Babel." Indeed, vertical industries, such as legal, healthcare, and banking, have the most to gain from a customizable, web-based information architecture. Yet, the power individuals and organizations have to build their own vocabularies means there is a great potential for the chaos that will most certainly come if everyone develops their own language.

Indeed, experience has shown that when several creative people independently create *legal* elements, the result is several different elements, and several different element structures, for the same information. For example, the following tags are all different and incompatible in XML:

- <CourtFiling>

- <COURT_FILING>
- <filing>
- <courtFiling>

Intuitively, however, each of these tags convey the same or similar meaning to a legal mind.

As times passes, more and more software developers will create incompatible XML for the same information. Incompatible XML means different software applications (i.e., users, i.e., lawyers) cannot "talk" to each other. Consider, for instance, the ongoing incompatibility of document formats in Microsoft Word and Word Perfect (even among different versions of the same applications). XML has the potential to increase incompatibility among legal applications by a magnitude far greater than the present incompatibility between Word and Word Perfect. Thus, very clearly, XML, the tool, can be used both wisely and unwisely.

B. There Are No Legal XML Authoring Tools

Another problem with XML is what it looks like. To most programmers, XML is a user-friendly language. It is easy to read because it is text-based and verbose. For a programmer, XML is a great language because it can be typed into any text editor. Lawyers and other legal professionals, however, cannot be expected to mark-up their own documents, nor will they care to see tags littering their documents. Authoring a document would be like writing in Word Perfect with "reveal codes" turned on all the time. In short, one of the problems with XML, in the legal industry and in any other industry, is that even if there were standard document formats there are no industry-specific authoring tools to create XML documents.

Although it is impossible to predict the future, it is likely that XML standards and authoring tools will evolve in parallel. Stated another way, standards and authoring tools compliment each other and cannot exist without the other. Indeed, to avoid information chaos, the hope must be that application developers (whether vendors or governments) will attempt to develop and use standards as they build applications.

IV. WHAT IS LEGAL XML?

A. Introduction

The solution to the "Tower of Babel" problem and the "authoring tool" problem is to create XML standards. It is easy to see how a standardized XML vocabulary will solve the Tower of Babel problem. That is, if we are all speaking the same language, there is no problem. Standards will also solve, or have the potential to solve, the authoring tool problem as well, but to understand why requires more analysis.

Today, there are two authoring tools used primarily by lawyers—Microsoft Word and Word Perfect. These programs produce incompatible document formats that make it difficult to exchange documents

among lawyers who, for whatever reasons, have decided to use different applications. If there were more authoring tools in prevalent use, the incompatibility problem would be more severe, which may, in fact, be a reason why there are not more applications in use and why Word Perfect is quickly losing market share.

There are two alternative solutions to the present incompatibility problem. First, the legal industry could standardize on one document format that could be produced by both Microsoft Word and Word Perfect. Or, the industry could standardize on one word processor for the entire legal profession. Neither option is realistic.

XML, because it is customizable on an industry-by-industry basis (or, at worst, on an organization-by-organization basis), "forks"[32] the world of document formats. Both Word Perfect and Microsoft Word document formats are generic document formats. That is, any industry—healthcare, legal, banking—can use these word processors to write a document. As new, industry-specific document formats are developed in XML, there will be opportunity to create a wide variety of industry-specific authoring tools. Indeed, even within the legal industry, there are a large number of types and subtypes of documents, including contracts, court filings, judgments, bills and statutes, transcripts, journals and law review articles, to name but a few. Each of these document types, potentially, may require a different authoring tool or authoring system.

Indeed, commercial legal document generation systems and homegrown, law-firm specific document repositories and document macros (written in Word Perfect or Microsoft Visual Basic for Microsoft Word documents) are the forerunners of what may become legal authoring tools. The problem with these tools and systems is that there is no way to "save in" XML. And, even if there were a way to save in XML, there is no standard XML to save in, so there is no way to give, for instance, an XML contract written in one law firm to another law firm for review and negotiation.

Widely accepted document standards help solve the "authoring tool" problem because one (or several related) document standard(s) (e.g., contract, transcript, statute) make it economically attractive, because the market is large, to develop authoring tools that comply with the standard. Not only would it make sense for Microsoft and Word Perfect to comply with a standard (or develop their own de facto standard, if this were possible), but *anyone* else who wanted to develop a legal authoring tool would be motivated to do so, knowing that the output of the program could be read and understood by anyone.

An ancillary and potentially beneficial effect of standards is that legal professionals could chose from a variety of authoring tools, rather than just one or two, as is the case today. This can only happen, of course, if

32. "Forks" is a term sometimes used in the technical community to mean a split or divergence in code or logic.

software developers do not have to worry that their users will not be able to exchange legal documents. This means there must be standards.

Accordingly, Legal XML, the organization, seeks to bring legal and technical minds together in one forum to create a compatible set of open, non-proprietary document formats and related standards.

B. MEMBERSHIP

As of July 2000, there were over 545 Legal XML members (although there are 665 at the time of this writing).[33] Demographically, Legal XML members are made up of approximately 50% private companies, 25% government, 12.5% academic, and 12.5% non-profit organizations. Legal XML members come primarily from the United States, but there is an increasing international presence. Of almost 130 non-U.S. members, there are approximately 84 members from the Asia-Pacific (77 Australians, 6 Indians, 3 Japanese, 2 New Zealanders, and 2 from Singapore), 20 Canadians, 25 Europeans (9 British, 7 Germans, 2 Austrians, 2 Dutch, 1 Irish, 1 from Luxembourg, 1 Dane, 1 Swede, 1 Hungarian, and 1 Croat), 1 Brazilian, and 1 South African. Recently, a German legal XML organization formed (http://www.lexml.de/) and is partnering with Legal XML.

C. SCOPE

1. Theoretical Versus Practical Scope

Legal XML has both a theoretical and practical scope. Theoretically, every electronic document that can be categorized as "legal" is within the scope of Legal XML. Practically, however, it would be impossible to describe all legal documents in XML all at once or even in a short time. Further, there must be a balance between creating technically competent and extensible standards and meeting short-term market demands. The development process must be modest and iterative. As a result, there is a practical limit to Legal XML's scope.

Theoretically, the Legal XML "domain" can be divided "vertically" and "horizontally" into various "subdomains." For instance, vertical subdomains include, but are not limited to, Court Filings, Judgments, Public Law (e.g., bills, statutes), Private Law (e.g., contracts, wills), and Publications (e.g., legal books, law journals). Horizontal subdomains include Citations, General Vocabulary (e.g., names, addresses), and Logical Document Structure (e.g., root elements, tables, outlines, paragraphs, signatures, general structural methodology). Horizontal subdomains cut across vertical subdomains. For example, citations will be found in Court Filings, Case Law, Public Law, and Private Law documents. There is no need to recreate citation mark-up for each vertical subdomain; instead, the same citation markup can be used in all subdomains. Among other things, Legal XML seeks to harmonize and coordinate the various horizontal and vertical subdomains within the larger legal community.

33. *See Legal XML Overview*, *supra* note 2.

Practically, Legal XML's scope is determined pragmatically. If there is a group of individuals willing to work to develop Legal XML in any particular subdomain, then that subdomain is within the practical scope of Legal XML. That is, if a group of people exist who are willing to do the work that falls within Legal XML's theoretical scope, then Legal XML will help to facilitate and support the work.

2. *Methodology*

Although Legal XML is still young and developing, there are policies and a culture that have been developing that guide the group and inform its methodology. The following methodologies exist or are developing in Legal XML:

- Form Partnerships
- Workgroups Led by Chairs
- Agreement Where Possible
- Overinclusive and Optional
- Agree to Disagree Using Identifiable Extensions and Change Management
- Two Interoperable Implementations

a. Form Partnerships

As a new organization, Legal XML does not have sufficient clout to adequately promote its standards in a political sense. On the other hand, Legal XML is quickly becoming a forum where people with both legal and technical expertise can interact and develop standards. Accordingly, Legal XML membership has sought to form partnerships with existing organizations that have both political clout and subject matter expertise. Legal XML has partnered, formally and informally, with organizations such as the Joint Technology Committee of COSCA/NACM, the National Court Reporters Association, SEARCH, the California Administrative Office of the Courts, and, recently, LEXML (Europe/Germany).

b. Workgroups Led by Chairs

Legal XML is divided into Workgroups, such as Court Filing and Transcripts. Workgroups develop specifications that define the technical XML standards. One or two chairs lead each Workgroup. There are two Workgroups, LEGAL and HORIZONTAL, that attempt to harmonize work done by other Workgroups so that all standards are consistent. The TECHNICAL Workgroup works on difficult technical issues. The USERS Workgroup exists where non-technical members can ask questions and define requirements. There is also a CHAIRS mailing list, comprised only of Workgroup Chairs, and an ADMINISTRATION mailing list, where important leadership and administrative decisions are made.

c. Agreement Where Possible

To date, the most active workgroups have been COURTFILING and TRANSCRIPTS. The COURTFILING Workgroup is the first and only workgroup to publish a "proposed" standard. Although there have been debates on a number of topics, both on the workgroup mailing list and at face-to-face meetings, the workgroup has done an excellent job of agreeing where possible. When agreement has not been possible, the group has taken an "overinclusive and optional" approach.

d. Overinclusive and Optional

There are sometimes cases where one person or a small constituency wants or needs, for example, XML elements "A," "B," and "C," but another person or constituency wants or needs XML elements "C," "D," and "E." In these cases, the group has generally included elements to meet everyone needs, but has made the extra elements optional. In the example above, for instance, element "C" would be required, because everyone agrees on it, but elements "A," "B," "D," and "E" would be optional. In this way, all the necessary elements are included in the standard, but there is no requirement to use certain elements.

Being overinclusive in this way, yet allowing for optional use ("overinclusive and optional"), is advantageous because it provides a basis for overall agreement and helps workgroups move forward more quickly. The disadvantage of "optionality" is that the standard may become complex and "less standard." To address this problem, at least in the case of the court filing standard, the COURTFILING Workgroup has agreed in principle to develop an ancillary "policy" standard that will automate the process of determining court policy with respect to optional elements. For instance, if element "A" in the court filing specification has three optional values, "X," "Y," and "Z," then a court could specify in the ancillary court policy XML a specific choice. Because court policy is itself specified in XML, software applications can automatically determine policy by fetching a published version on the Internet.

e. Agree to Disagree Using Identifiable Extensions and Change Management

XML technology is extensible in many ways in that it allows for identifiable extensions that can be added to a core set of elements. Where agreement cannot be achieved or where there has not been enough time to comprehensively define a set of elements for all imaginable information (keep in mind the theoretical versus practical scope explanation, above), Legal XML has developed a policy of "agreeing to disagree." For example, in the Court Filing proposed standard, there are "safe harbor" zones in the DTD where it is technically possible to use any element, even if it is not a standard element. In other places, there are ways in which even non-XML content can be included in a court filing. However, non-standard content may only appear in places where the workgroup

has agreed it may appear. Thus, there is a standard way to deviate from the standard.

At the time of this writing, Legal XML's change management policy is not yet fully developed, simply because the group needs more candidate standards and more implementation experience. Some Legal XML members are working on ways to provide for rational change management and version control. Such change management will allow standards to evolve and develop so that small amounts of work can be done over time. In general, the vision is that relatively simple or even "primitive" standards will be developed over time into even more sophisticated and enriched tools with greater and greater applicability, including more and more of what is needed for court filings, contracts, transcripts, statutes, and so forth. There is no reason to hold up needed applications while waiting for "complete" standards. Standards will evolve over time.

f. Two Interoperable Implementations

As of this writing, Legal XML has not yet produced a final, "recommended" standard. Legal XML has, however, published its first "proposed" standard.[34] Although this may change, it appears that Legal XML members are committed to requiring "two interoperable" implementations of any "proposed" standard before a standard will be considered "final" and "recommended." This allows room to test and learn from live implementations before standards are "cast into concrete."

3. Legal XML's Existing Workgroups

Legal XML has evolved into several workgroups.[35] Today, there are eighteen substantive workgroups, five jurisdictional workgroups, and three administrative workgroups.

The substantive workgroups are:

- Legal
- Horizontal
- Technical
- Users

Legal, Horizontal, Technical, and Users are workgroups that seek to define policy and requirements that apply globally to the more specific substantive workgroups. The goal is to harmonize and build a fundamental unity among various standards that come from the subject matter workgroups, which as of this writing include:

- Citations
- Contracts
- Court Filing
  - — Appellate Court Filing (subgroup of Court Filing)

34. See *infra* Part IV.C.6, *Document Categories*, for an explanation of the distinction between a "proposed" and "recommended" standard.

35. *See Legal XML Workgroups* (visited Sept. 26, 2000) <http://www.legalxml.org/Information/LegalXMLWorkgroups.asp>.

— Child Support (subgroup of Court Filing)
- ETerms
- Integrated Justice
- Judicial Decisions
- Legislation
- (PKI) Policy
- Publications
- Research
- Signatures
- Transcripts

There are also five jurisdictional workgroups:
- Australia
- California
- Georgia
- Lexml (Europe/Germany)
- Washington (State)

There are three administrative workgroups:
- Chairs
- Administration
- Communications

4. General Information About Workgroups

a. General

Legal XML members are categorized either as "Observers" or "Participants."[36] Observers are not required to, and generally do not, agree to the Legal XML Operating Rules. Participants agree to the Legal XML Operating Rules. Workgroups are comprised of Participants, but not Observers. A workgroup's purpose is to draft specifications that will become Legal XML "recommended" standards.

b. Chairs

Each workgroup has one or more chair that leads the Workgroup in a vendor-neutral, non-proprietary way to achieve the workgroup's mission and goals.

c. Charters

Each workgroup is encouraged to have a written charter. In practice, most workgroups do have a charter. The charter usually provides information about the following:
- Chair(s)
- Scope and Purpose
- Deliverables
- Timeline

36. *See Legal XML: Operating Rules* (visited Sept. 26, 2000) <http://www.legalxml.org/DocumentRepository/OperatingRules/#ObserverorParticipant>.

- Dependencies (on other Legal XML Workgroups or on outside workgroups or standards)
- Requirements (may be stated in a separate document)
- Face-to-Face Meetings
- Communication (internally and externally)
- Decision Procedure
- Confidentiality (e.g., are Workgroup Working Drafts public or private)
- Copy of, or link to, Legal XML Intellectual Property Statement and Disclaimers
- Reading List

Charters are useful for many reasons. The exercise of drafting a charter helps refine the mission and goals of the workgroup. Once a charter is drafted, it serves as a compact among workgroup members. Additionally, as prospective members contemplate joining a workgroup or as new members join, it is easy for them to learn about the mission of the group.

It is likely in the future that the LEGAL workgroup or some other Legal XML committee will be empowered to have final review and approval of charters. So far, in the absence of review by a committee, review is done by interested workgroup members.

d. Meetings

Face-to-face meetings are usually arranged by workgroup chairs and are funded and organized by a volunteer host. Consensus of the workgroup determines when, where, and how often face-to-face meetings are held. Workgroup chairs determine when consensus is reached regarding a face-to-face meeting.

The chair usually gives reasonable notice of face-to-face meetings to all Legal XML members. Although workgroup mailing lists are reserved for Participants, it has been the practice that anyone may attend face-to-face meetings.

The workgroup chair is responsible for posting electronic meeting minutes to the workgroup's mailing list or website within a reasonable time after the face-to-face meeting.

e. Communication

Each workgroup meets virtually via its mailing list. Some mailing lists are more active than others. Traffic on mailing lists tends to be cyclical—there are spurts of activity followed by slow periods. Workgroups may conduct telephone conferences and may meet face-to-face. There have been several face-to-face meetings, but only a handful of telephone conferences.

5. Forming, Joining, Modifying, and Closing a Workgroup

a. Forming of a Workgroup

A Workgroup may be formed for any purpose that falls within the scope of Legal XML's mission.

Workgroups are usually formed at the request of a Legal XML member. In the past, requests to form a workgroup have been made to this author and, in most cases, Legal XML members have been polled to determine whether there is sufficient interest to create a new workgroup. Membership has not always been polled in the case of "jurisdictional" workgroups (such as Australia, California, Georgia, Lexml, and Washington (State)) simply because residents of these jurisdictions have often been in a better position than full membership to determine the level of interest of people in their jurisdictions.

If there is sufficient interest to create a workgroup, nominations are made for chairs. Chairs are selected based on consensus of Legal XML members (again, this has not always been the case with respect to jurisdictional workgroups). There are normally one or two chairs, although there could be more. The chairs are responsible for drafting a charter and otherwise leading the workgroup.

b. Joining a Workgroup

Any Participant may leave or join a workgroup mailing list via automated tools on the website. Access to mailing lists is limited to Participants to ensure that everyone on the mailing lists has agreed to the Legal XML Operating Rules and Intellectual Property Policy. The workgroup mailing lists are not moderated. There has never been a case where a Participant has not been allowed to join a workgroup or where a Participant has been kicked off of a workgroup. There have been a handful (under five) occasions where this author has privately emailed individuals in response to disruptive behavior on the mailing lists.

c. How to Modify a Workgroup Charter

To modify a workgroup Charter, a workgroup Participant makes a request to the workgroup's Chair or emails the workgroup mailing list directly. The workgroup determines whether there is consensus among workgroup members for the change. If the Chair determines, or if it is otherwise clear, that there is consensus for the change, the change is made.

d. Closing a Workgroup

A Workgroup closes when it has completed its deliverables. A Workgroup may, but must not, close at the end of its timeline as stated in its Charter. A Workgroup may also close when there is not sufficient interest or resources to continue the Workgroup. To date, no workgroup has been closed.

6. Document Categories

There are several types of Legal XML documents:

- Unofficial Notes
- Working Drafts
- Proposed Standards
- Recommended Standards
- Administrative
- Workgroup Charters

Authors submit Unofficial Notes to Legal XML for publication to stimulate discussion. An Unofficial Note can be the basis for the formation of a new Legal XML Workgroup, an existing Workgroup may adopt it, or it may remain purely informational. Legal XML does not endorse Unofficial Notes and does not have to consider them. Further, copyright in the Unofficial Note remains in the author.

Working Drafts are specifications that workgroups are actively developing. Once a Working Draft is mature, the Workgroup submits the draft to the Legal workgroup as a "Proposed Standard." After internal and public review, full Legal XML membership will either reject the Proposed Standard, possibly sending it back to the Workgroup for further development, or it will elevate the document to a "Recommended Standard."

By agreeing to the Legal XML Operating Rules and Intellectual Property Policy, members transfer intellectual property rights to Legal XML in all member intellectual property in *Proposed* and *Recommended* Standards (but not Unofficial Notes or Working Drafts). The rationale for this policy is that Legal XML, because it promotes open, non-proprietary standards, does not want to propose or recommend a technology to the market that could later require payment of a fee or royalty. The principle is that information exchange standards should be free, although it is understood that proprietary software applications will be built based upon the open information standards.

D. Governance, Process, and Principles

1. Operating Rules

Legal XML members are governed by the Legal XML Operating Rules (http://www.legalxml.org/DocumentRepository/OperatingRules/).

2. Consensus

Decisions are made in Legal XML based on consensus.[37] Consensus is established when members have reached substantial agreement. Substantial agreement means more than a simple majority, but not necessarily unanimity. While unanimity is preferred, it is not practical to require unanimity on all issues. In some circumstances, consensus is achieved

37. *See Legal XML Decision Procedure* (visited Sept. 26, 2000) <http://www.legalxml.org/DocumentRepository/OperatingRules/#DecisionProcedure>.

when the minority no longer wishes to articulate its objections. When disagreement is strong, the opinions of the minority are, or should be, recorded in appropriate documents alongside those of the majority.[38]

The Court Filing workgroup developed a practice of asking "Can anyone not live with this decision?" In almost all cases, the workgroup has been able to proceed with everyone "able to live with the decision" even though some people might have preferred an alternative result. In general, this practice is very healthy because no one leaves the process with the feeling that their strong objections were swept aside because they were in the minority. This practice is not, however, a license to filibuster. Indeed, if only one or two people were to object strongly, then the consensus policy would not allow them to filibuster and stop the process.

3. *Communication*

Legal XML members communicate through online mailing lists located at http://www.legalxml.org and at periodic face-to-face meetings. Important information is posted on the Legal XML website, which is under continuous development and expansion.

E. INTELLECTUAL PROPERTY

To assure that Legal XML standards remain open and non-proprietary (i.e., free to the public and standard), the group has adopted an intellectual property policy modeled on the intellectual property policies of the Internet Engineering Task Force ("IETF")[39] and the World Wide Web Consortium.[40] (The IETF and the W3C are the most well-known and successful Internet standards bodies. Without technical standards from these groups, communication over the Internet would not be possible.)

The IETF, W3C, and Legal XML intellectual property policies are based on the notion of General Public License ("GPL") or "Copyleft." Under a GPL, an organization's members cooperatively develop intellectual property (the standards) with other members, some of whom may be fierce competitors. The organization retains intellectual property rights to the jointly developed standard. Retaining intellectual property rights helps ensure that the standard will not be changed. At the same time, the organization grants a perpetual license to the public to use the standard

38. The Legal XML consensus policy is borrowed from the World Wide Web Consortium. *See* W3C Process Document, *1 W3C Background* (visited Sept. 26, 2000) <http://www.w3.org/Consortium/Process/Process-19991111/background.html#Consensus>.

39. *See* Internet Engineering Task Force (visited Sept. 26, 2000) <http://www.ietf.org/>; Network Working Group, *The Internet Standards Process—Revision 3*, at 28 (visited Sept. 26, 2000) <http://www.ietf.org/rfc/rfc2026.txt>.

40. W3C, *W3C Intellectual Property and Legal Disclaimers* (last modified July 28, 1999) <http://www.w3.org/Consortium/Legal/ipr-notice-20000612>. For a detailed analysis including analysis of U.S. law, see Winchel "Todd" Vincent, III, *Protecting Standards: General Public License (Copyleft) Versus Public Domain* (Oct. 14, 1999) <http://www.legalxml.org/Information/Copyleft/GeneralPublicLicenseV0.5.pdf>.

for free. In this way, the organization's work is free and open, yet remains standard.

V. WHAT IS BEING STANDARDIZED?

A. Characteristics of Electronic Documents

To understand what is and is not being standardized, remember the distinction made in Part II.B, "Electronic Document Formats" about the characteristics of electronic documents. Electronic documents have three characteristics:

- Formatting
- Logical Structure
- Data

In XML, formatting is separated from logical structure and data. Legal XML is working to standardize the logical structure and data within legal documents. Legal XML does not seek to standardize the formatting, or appearance, of documents. That is, Legal XML will never tell a lawyer, a judge, or a jurisdiction that a document must be presented or look any particular way.

B. Role of Stylesheets

Part II, "What is XML?" explained DTDs and well-formed XML. Well-formed XML is not easy to read because the tags get in the way. Like HTML, XML has a means of hiding the tags (logical structure and data) so that only the text and formatting appear to the user. Formatting the document is done with a "stylesheet."

There are two types of stylesheets. The first is Cascading Stylesheets ("CSS"). The second is based on eXtensible Stylesheet Language ("XSL"). These technologies are very different. CSS is much simpler, but less powerful than XSL. An explanation of these technologies is beyond the scope of this paper. The following is an example of a CSS stylesheet.[41]

```
Clause {
display : block;
font-size : 14;
font-family : Times New Roman;
font-weight : normal;
font-style : normal;
color : Black;
margin-top : .25cm;
margin-bottom : .25cm;
margin-left : .5cm;
}
```

41. *See Cascading Stylesheets* (last modified Sept. 18, 2000) <http://www.w3.org/Style/CSS/>.

Recall the <Contract> example, above. In the <Contract> example, there was a <Clause> element. In the CSS stylesheet above, the "Clause" tells a web browser that the formatting information between the curly brackets {} should be applied to all text contained within a begin tag, <Clause>, and an end tag, </Clause>. The browser also knows, as it does in HTML, that it should hide the tags but display the text with the appropriate fonts.

It is difficult to conceptualize how well-formed XML and stylesheets are combined. Online examples are available at http://www.legalxml.org/DocumentRepository/UnofficialNotes/Clear/UN_10010_2000_02_02.htm. (As of this writing, this document can only be viewed with Internet Explorer 5.0 or higher. Examples are by Rolly Chambers and this author).

The major advantage that stylesheets have is that they separate formatting information from logical structure and data. This is very powerful because it means that the same information can be formatted in a variety of ways simply by applying different stylesheets. XSL is an even more powerful stylesheet language, because it allows software to manipulate the elements within the XML document. This can be very powerful when attempting to convert information from one set of elements to another.

C. What is Being Standardized and What Is Not

It is important to understand that there is a very clear line between the standardization of logical structure and data, on one hand, and formatting, on the other hand. Technically, stylesheets and formatting, whether CSS or XSL, are completely different than the underlying XML. Legal XML is not attempting to, and does not need to, standardize stylesheets. Indeed, it is not likely that anyone could standardize, or would want to standardize, the way documents look to a human reader. That is, legal documents tend to differ among legal practitioners, judges, courts, jurisdictions, and practice areas. What is important is that the underlying legal information can be exchanged between legal professionals who use different software applications. This can be done, without standardizing a "look and feel" because stylesheets are technically separate from XML elements.

It is also important to understand that Legal XML is not standardizing the law. It may happen, over time, that common data standards facilitate the aggregation of legal information and provide lawyers, governments, and legal scholars with the tools to develop national and international legal standards. However, if this occurs, it will not happen because Legal XML has standardized the law; it will happen because there are information management tools (perhaps built on Legal XML standards) that allow legal professionals to better compare and contrast different types of law, and, perhaps, even harmonize the law.

Like the law, Legal XML is not standardizing policy. For instance, in the Legal XML court filing specification, it is assumed that different courts will have different policies about how they use information and

what information they deem important. Legal XML does not seek to make policy decisions for the courts. Rather, Legal XML seeks to provide a standard information format for courts so they can easily exchange policy information and, hopefully, make policy decisions themselves.

VI. HISTORY OF LEGAL XML

The "Legal XML" idea is not new or original. The idea, in fact, has a dated history. In 1974, Charles F. Goldfarb,[42] a lawyer, invented Standard Generalized Markup Language ("SGML").[43] SGML became an international standard in 1986 (ISO 8879).[44] In 1987, Alan Asay, a brilliant lawyer and technologist, created civil and criminal SGML document type definitions ("DTDs") for the Utah State Courts. (Alan Asay also wrote Utah's original Digital Signature Act, the first of its kind in the world.) These two visionaries and inventors planted the seeds from which Legal XML developed.

Over ten years later, in February 1998, the World Wide Web Consortium ("W3C") recommended eXtensible Markup Language ("XML") as a standard. XML is a subset of SGML. XML has eighty percent (80%) of SGML's power and is backwards compatible, but is easier to use than SGML.

In February 1998, twenty-five lawyers, court administrators, and technologists participated in a virtual electronic court filing seminar hosted by Counsel Connect.[45] During the seminar, John Messing suggested that XML be used as a basis for a standard legal document format for court filings. John attributed the idea to Winchel "Todd" Vincent, with whom he had had previous conversations on the subject. Todd based his analysis on doing research, which included reading articles by Alan Asay.

Some people in the Counsel Connect forum had never heard of XML. Some joked that it must be some sort of new religion. Some thought that XML was simply another hyped Internet technology that would likely have a short life and early death. Nevertheless, eleven people joined together to form the "Legal XML Workgroup." The Utah Electronic Law Partnership ("UELP"),[46] headed by Brent Isrealsen, hosted the original Workgroup.[47] Unfortunately, that Workgroup never did any real work. The idea, simply, was not ripe. Legal XML did not yet have a following.

Georgia State University's Electronic Court Filing Project,[48] led by

42. Charles F. Goldfarb, *SGML Source Home Page* (last modified Nov. 27, 1999) <http://www.sgmlsource.com/>.

43. Charles F. Goldfarb, *Project Editor's Review of ISO 8879* (visited Sept. 26, 2000) <http://www.sgmlsource.com/8879rev/index.htm>.

44. *See id.*

45. *See* Counsel Connect Forum Archives, *Standards and Court Rules* (visited Sept. 26, 2000) <http://home.pacbell.net/webright/personal/CCEFiling/standards.htm>.

46. Utah Electronic Law & Commerce Partnership (UELCP), *Mission Statement* (visited Sept. 26, 2000) <http://www.uelcp.org/>.

47. UELCP, *XML Workgroup* (visited Sept. 26, 2000) <http://www.uelcp.org/xml.cgi>.

48. Georgia State University Electronic Commerce Partnership, *Electronic Court Filing Project* (visited Sept. 26, 2000) <http://e-ct-file.gsu.edu/>.

Todd Vincent, was an original member of the UELP Legal XML Workgroup. Throughout the spring and summer of 1998, Todd promoted the idea of Legal XML standards. In late 1998, Gabe Wachob of FindLaw[49] and Todd at Georgia State partnered in an effort to revive the Legal XML Workgroup. Georgia State created and hosted a "developers" mailing list for people who were interested in developing Legal XML DTDs and related standards. A short time later, FindLaw created and hosted a "general" discussion mailing list for people who were interested in standards, but who were not interested in reading the technical details.

Independently, during the summer of 1998, Rich Himes of the New Mexico Federal District Court, another brilliant technologist and a colleague of Alan Asay, was developing XCI (XML Court Interface).[50] XCI is Java-based software that uses XML to transmit documents and data into a court. XCI has now become OXCI, for "Open XML Court Interface," an open source software effort. OXCI is not organizationally related to Legal XML, although most of the people in OXCI participate in Legal XML and OXCI uses the Legal XML court filing proposed standard.

During the summer of 1998, Nick Finke was also doing important work at the University of Cincinnati's Center for Electronic Text in the Law.[51] In the summer of 1998, Nick and Todd met in Cincinnati to discuss Legal XML.

The Georgia State Legal XML developers mailing list began in November 1998 with seventeen members. Rich Himes, Nick Finke, and John Messing were among the original members. By March 1999, membership had grown to forty-five. Traffic on the mailing list contained many great ideas, but there was little structure or organization. It was clear that the group needed a charter to define its mission and scope, among other things. The group created a draft charter and defined its scope broadly to include not only court filings, but also public law (such as bills and statutes) and private law (contracts).

By the summer of 1999, the developers list had grown to around sixty people. By this time, active members were creating and donating markup and stylesheets. Rolly Chambers, one of the group's few real live lawyers and another avid technologist, made significant and outstanding contributions. Other members were not contributing, however, but were taking advantage of the shared knowledge. It became clear that if the group's mission was to create open, non-proprietary standards, an intellectual property policy needed to be developed. To enforce the intellectual property policy, there needed to be enforceable legal agreements among members. At the same time, the volume of intellectual property being donated to the list required some formal process for submitting, organiz-

49. *FindLaw* (visited Sept. 26, 2000) <http://www.findlaw.com/>.

50. XCI, *XCI Home Page* (visited Sept. 26, 2000) <http://www.nmcourt.fed.us/xci/xcihome.htm>.

51. CETL, *About CETL* (visited Sept. 26, 2000) <http://www.law.uc.edu/CETL/>.

ing, and vetting ideas. There was also a growing need for a face-to-face meeting, administration, and sponsorship. In short, the group needed governance and structure. It needed legally enforceable Operating Rules.

On the political front, James Keane, an active member of the American Bar Association and, at that time, an independent consultant, organized the first of several "XFiles!" meetings. The March 1999 ABA Techshow XFiles meeting was the first time that interested, high-level industry players sat in the same room to discuss the issue of XML standards. Competing interests and ideas were evident and there was tension as a result, but the meeting was a huge success.

On September 15th, 1999, the first day of the National Center for State Courts'[52] Court Technology Conference 6 ("CTC6") in Los Angeles, John Greacen of the New Mexico State Courts and head of the Joint Technology Committee ("JTC")[53] of Conference of State Court Administrators ("COSCA")[54] and National Association of Court Managers ("NACM"),[55] announced JTC's intention to develop XML standards for court filing.

Two days later, on September 17th, 1999, Legal XML held its first face-to-face meeting. Jim McMillan of the National Center for State Courts sponsored the meeting, which immediately followed CTC6 in Los Angeles. DRAFT Operating Rules had been written in anticipation of the meeting. The purpose of the first face-to-face meeting was to vet the DRAFT Operating Rules and give technical presentations.

Attendance at the first Legal XML face-to-face meeting was overwhelming. Forty-two (42) newcomers attended the meeting, including John Greacen and other members of JTC. Seventeen (17) existing members attended the meeting.[56] Among the attendees[57] were two representatives from the American Bar Associations' Standing Committee on Technology and Information Systems (SCOTIS). There were also four Australians, Allison Stanfield, Jo Sherman, Eddie O'Brien, and Chris Priestley. (Allison Stanfield was the first female Legal XML member as well as the first Australian Legal XML member.) Debate at the meeting was lively. There was controversy over the DRAFT Operating Rules and its intellectual property policy. Newcomers were not familiar with the idea of General Public License or "copyleft." There was a cry from gov-

52. NCSC, *National Center for State Courts Home Page* (visited Sept. 26, 2000) <http://www.ncsc.dni.us/>.

53. JTC, COSCA/NACM Joint Technology Committee, *Statement of Purpose and National Agenda* (visited Sept. 26, 2000) <http://cosca.ncsc.dni.us/jtc.html>.

54. COSCA, *Conference of State Court Administrators* (visited Sept. 26, 2000) <http://cosca.ncsc.dni.us/>.

55. NACM, *National Association for Court Management* (visited Sept. 26, 2000) <http://nacm.ncsc.dni.us/>.

56. *See* Legal XML, *Legal XML Face-to-Face Meeting: September 17, 1999* (visited Sept. 26, 2000) <http://www.legalxml.org/FTF/FTF001/index.htm>.

57. *See* Legal XML, *Legal XML Face-to-Face Meeting Attendees: September 17, 1999* (visited Sept. 26, 2000) <http://www.legalxml.org/FTF/FTF001/FTF001Attendees.htm>.

ernment attendees that all intellectual property ought to be released into the public domain.

Fifty new members joined the Legal XML mailing lists immediately after the face-to-face meeting. An intense debate ensued over the Legal XML intellectual property policy. One of the primary issues was whether the JTC XML Court Filing effort should join with Legal XML to develop a standard together. JTC representatives, who were primarily government employees, were concerned about the appropriateness of retaining intellectual property rights in the standard rather than publishing the work into the public domain.

In October 1999, Georgia State University Research Foundation, Inc. agreed to become the Legal XML "Intellectual Property Steward." This meant that Legal XML was no longer simply a group of people on mailing lists, but was backed by a legally recognized entity. This also allowed members, for the first time, to contract with the Research Foundation and bind themselves to the Legal XML Operating Rules and Intellectual Property Policy. The Foundation now holds intellectual property on behalf of Legal XML members and then licenses the intellectual property to the public perpetually and for free under the General Public License.

On November 4th, 1999, JTC held its first Court XML meeting in Albuquerque, New Mexico. Sixty people attended the meeting.[58] At that meeting, John Greacen announced that JTC would work with Legal XML to develop XML standards for court filing. John Greacen would lead the JTC effort and would act as Chair of the Legal XML Court Filing workgroup. This was a major breakthrough for Legal XML because it was the first partnership between Legal XML and an existing organization with subject matter expertise. At this meeting, it was also decided that there would be several phases of the Court XML standard. The Albuquerque group agreed to work to publish a standard to meet the JTC's deadline set for COSCA/NACM meeting to be held March 22nd, 2000. In December 1999, JTC officially decided to partner with Legal XML.

In January 2000, the Legal XML Transcripts Workgroup, headed by Davin Fifield and Eddie O'Brien (both Australian), met in New York. Nine people attended, including David Wacht from the National Court Reporters Association. The Court Filing Workgroup held its second face-to-face meeting in January in Phoenix, Arizona.

In early March 2000, Legal XML held its second face-to-face meeting in Atlanta, Georgia.[59] Forty-nine people attended the meeting. Several workgroups met face-to-face in conjunction, including Court Filing, Transcripts, Contracts, and Public Law. Among the attendees were many of Legal XML's workgroup chairs, including Donald Bergeron and Rolly

58. *See* COSCA/NACM Joint Technology XML Standards Committee, *November 1999 Meeting* (visited Sept. 26, 2000) <http://www.jointcourtxmlstandard.org/xml/JjntXmlStandard.nsf/516c7664fda1528a862565ec00504473/b4ec02149797afc78725681f007ca733?OpenDocument>.

59. Legal XML, *Legal XML Face-to-Face II Meeting Minutes* (visited Sept. 26, 2000) <http://www.legalxml.org/FTF/FTF002/MeetingMinutes.htm>.

Chambers (LEGAL), William Jennings (HORIZONTAL), John Greacen and Robin Gibson (COURTFILING), Mohyeddin Abdulaziz (APPEALS), Eddie O'Brien and Davin Fifield (TRANSCRIPTS), Dan Greenwood and John McClure (CONTRACTS), Nick Finke (PUBLICLAW), and Toby Brown (COMMUNICATIONS). At this meeting, members decided to form an Organizing Committee that would help to continue the development of Legal XML as an independent non-profit organization.

On March 22nd, 2000, the Court Filing Workgroup published a first draft of a proposed standard, authored by Marty Halvorson and Rich Himes.[60]

On March 31st, 2000, the first Legal XML Organizing Committee meeting took place in Chicago, Illinois at the ABA Techshow.[61] Jim Keane hosted the meeting. Thirty-five people attended, although only twenty-five were invited. At the Organizing Committee meeting, members decided to form three subworkgroups. Attendees agreed to draft and publish recommendations on several topics by May 1st, 2000. Attendees agreed to meet again in Los Angeles, on or around June 20th, in conjunction with LegalTech for further face-to-face discussion.

The Court Filing Workgroup met again in May in St. Louis, Missouri and in June in Dallas, Texas.

The Organizing Committee met for a second time in June 2000.[62] There was broad consensus that Legal XML should become a non-profit organization and charge a membership fee.

The Integrated Justice Workgroup, chaired and organized by David Roberts, held its first meeting in June 2000 in Dallas, Texas. Approximately twenty people attended the meeting.[63]

In July 2000, Murk Muller hosted the first European/German Legal XML face-to-face meeting in Berlin, Germany.[64] Approximately fifteen people attended the meeting, including Axel Horns, one of the first forty-five Legal XML members and the first German Legal XML member. At the meeting, members decided to partner with Legal XML in an attempt to explore the development of language independent international standards.

Upcoming meetings include LEXML (Germany), September 22nd, Saarbruecken, Germany; Australia Workgroup, October 2000, Melbourne, Australia; Court Filing Workgroup, October 16-17th, 2000, Santa

60. *See* Legal XML, *Court Filing Workgroup Website* (visited Sept. 26, 2000) <http://www.legalxml.org/CourtFiling/>.

61. Legal XML, *Legal XML Organizing Committee Meeting I* (visited Sept. 26, 2000) <http://www.legalxml.org/FTF/OrganizingCommitteeFTF001/MeetingMinutes.htm>.

62. Legal XML, *Minutes from Legal XML Organizing Committee Meeting* (visited Sept. 26, 2000) <http://www.legalxml.org/FTF/OrganizingCommitteeFTF002/MeetingMinutes.asp>.

63. *See* Legal XML, *Legal XML Integrated Justice Workgroup Meeting I* (visited Sept. 26, 2000) <http://www.legalxml.org/IntegratedJustice/WD_100XX_2000_06_29.htm>.

64. LEXML, *LEXML* (visited Sept. 26, 2000) <http://www.lexml.de/>.

Fe, New Mexico; and a full Legal XML face-to-face meeting on November 16th, 17th, and 18th, 2000 at Massachusetts Institute of Technology.

VII. PROBLEMS WITH LEGAL XML AND THE FUTURE OF TECHNO-LEGAL STANDARDS

Like any organization, Legal XML has problems and challenges to overcome. Some of Legal XML's problems include heavy mailing list traffic; funding; policy and procedure; marketing, education, and outreach; political acceptance; and, interestingly, the very nature of its members.

A. Mailing List Traffic

Legal XML is a virtual organization comprised of members from around the world brought together in a common forum on mailing lists. The ability to bring legal subject matter and technical experts together from all over the world through technology is extremely powerful. The problem, however, is that lawyers and other legal industry professionals are generally not accustomed to doing work on mailing lists. There are complaints about great amounts of mailing list traffic generated and the high "noise-to-signal" ratio (that is bad/irrelevant content in relation to good/relevant content).

The high volume of list traffic justifiably annoys and surprises some people. It is a necessary evil, however, because the only alternatives are frequent face-to-face meetings and telephone conferences. Legal XML face-to-face meetings are usually extremely productive and necessary from time-to-time. However, face-to-face meetings are expensive for participants and cost prohibitive to many people who regularly make excellent contributions and simply cannot attend face-to-face. Even telephone conferences are cost prohibitive for international members. In the future, voice and video over the Internet may allow participants to meet virtually in a video/voice rich environment, rather than in a text-based environment. New technologies might alleviate some problems in the future, but for now, heavy email is the rule and email filters are an absolute necessity.

B. Funding

Although Legal XML membership is almost 665 and growing, the organization continues to be run through Georgia State University on borrowed servers and volunteer time. Indeed, Legal XML is a completely volunteer organization, although Georgia Courts Automation Commission pays for the Georgia State University Electronic Court Filing Project, which continues to maintain the Legal XML servers, update the website, and administer the mailing lists. There is a long list of "to-do" items and membership support services that could advance and speed the process of standards development. It is unlikely, however, that these

things will be done without a professional staff. Professional staff requires substantial, reliable funding.

At the Legal XML Organizing Committee meeting in June 2000, attendees agreed that Legal XML ought to begin charging membership fees. The consensus was that membership fees should be broken into "organization" and "individual" categories.

Organizations would pay membership fees based on the following rates:

For-Profit Organizations:	
• 200 and Above Employees	$10,000
• 199 to 75 Employees	$ 5,000
• 74 to 11 Employees	$ 2,500
• 10 and Under Employees	$ 1,000
Government:	$ 1,000
Non-Profit:	$ 1,000
Academic:	$ 1,000

Organizational members would receive additional benefits, such as name and logo posted on the Legal XML website. In addition, organizational membership would cascade down to all employees and to employees of subsidiary companies. That is, several people from the same organization could participate in Legal XML activities under the organizational membership.

Consensus at the Organizing Committee meeting was that individuals should pay $25. This relatively low amount would ensure that any individual could join as a Participant, regardless of whether their organization joined.

The chairs of the Legal XML Workgroups are soliciting letters of intent to fund Legal XML from their organizations. Initial letters of intent have been received.[65] Once a sufficient level of intent to fund is in place, Legal XML will incorporate as a non-profit and begin collecting membership fees.

C. Policy and Procedure

As a relatively new organization, Legal XML policy and procedure is still developing. Much has been done, but much more remains to be done. There are procedural questions about how and what decisions are made and by whom. Legal XML is a consensus organization, but most lawyers are accustomed to, and knowledgeable about, more formal organizational structures and rigid voting procedures. Consensus tends to be an amorphous and vague concept that makes some Legal XML participants uncomfortable.

There are also questions about how new workgroups are formed, the responsibilities of workgroup chairs, the need to define requirements and

65. Legal XML, *Letters of Intent to Fund Legal XML* (visited Sept. 26, 2000) <http://www.legalxml.org/LettersOfIntent/>.

produce technical documentations. These and other issues tend to be well known and well understood among technologists, but are foreign to most legal professionals.

Legal XML policy, procedure, and culture are evolving, however, and can be expected to continue to evolve over time.

D. Marketing, Education, and Outreach

There are a large number and a wide variety of existing legal and judicial organizations in the U.S. and abroad. Each of these organizations has existing subject matter expertise, political clout, and, in some cases, experience with developing technical standards for a specific sector of the legal industry. However, no single organization is recognized as a center for harmonizing technical standards among legal sub-industries. Indeed, without the Internet and XML, there has never been a realistic technical way or reason to attempt such harmonization (and some may argue there still is no realistic way or reason). Further, no one organization specializes in XML.

Legal XML, therefore, is positioned to play an important role distinct from that of other legal organizations. It is important, however, to market Legal XML existence to these organizations and gain political support, financial buy-in, and participation. Legal XML has not and should not attempt to define its scope too broadly. Indeed, Legal XML has developed a policy of partnering with existing legal organizations, such as the COSCA/NACM Joint Technology Committee, to develop standards. This is a healthy and rational policy that must be explained successfully to existing legal organizations.

Conveying this message requires marketing. A marketing effort is, at present, beyond Legal XML resources. There have been a number of workgroup chairs that have been very active among their constituencies in promoting the Legal XML effort. Still, Legal XML would certainly benefit from a more centralized educational and marketing effort. Better marketing, education, and outreach would help speed and facilitate the Legal XML standards effort, but is presently prohibited by time and resource constraints.

Finally, legal professionals need to learn more about Legal XML, the technology, and how it can help them in conducting business. Lawyers and other legal professionals tend to be bright, motivated people, but they are not always technically savvy and do not always have time to overcome the steep technical learning curve associated with XML and Internet technologies. To be sure, there are a number of great legal minds in Legal XML that also have technical skills, but even among these talented people, there are relatively few who have formal education in both technology and the law. Technical education among legal professionals, therefore, is extremely important.

E. Political Acceptance

Although Legal XML is becoming more and more politically accepted, there are a number of important legal industry organizations that could endorse, but have not yet endorsed, the Legal XML effort and organization. For instance, the American Bar Association, which has known about the Legal XML idea since before Legal XML began and which has always been friendly, has never endorsed the organization. Recently, the ABA stated in a resolution that XML standards should be pursued, but it did not mention Legal XML, the organization. A short time later, the ABA "commended" Legal XML, the organization. It has not, however, endorsed the effort. Other examples exist. Official endorsement, by the ABA and other important and well-known legal organizations, would be welcome and would greatly speed and legitimize the standards effort.

F. The Nature of Legal XML Members

It has been observed by more than one Legal XML member that a significant barrier to developing standards in the legal industry is that the nature of Legal XML members is to be adversarial. Indeed, lawyers, at least in the U.S., are encouraged and trained to be adversarial. Lawyers have an ethical duty to fight for a client's rights. Thus, unlike engineers who are trained to build finished products, lawyers are generally trained to dissect and break down complex ideas and arguments. Further, a good lawyer knows that a long and complex argument might delay decision making beyond a point that would make an adverse outcome irrelevant. In a heavily trafficked email environment where verbose lawyers attempt to communicate, it is sometimes difficult to get things done. In short, engineers create and build. Lawyers talk and destroy. This is problematic when attempting to develop standards.

Problems are exacerbated by the contrast between the thought processes of lawyers and technologists. Lawyers view the world in shades of gray. Technologists view the world as a binary decision tree, albeit sometimes very complex. Putting the two personality types together on mailing lists can often lead to miscommunication.

Finally, because Legal XML's focus is on legal standards, there is a high proportion of government stakeholders. There is an inevitable tension between government members and private vendors. Among other things, vendors have financial interest in mind, whereas government actors are generally more civic-minded. This also makes it difficult sometimes to find common ground and to communicate.

VIII. WHY SHOULD A LEGAL PRACTITIONER CARE?

If you are happy using Word Perfect 5.1 and conducting all your business on paper for the rest of your career, then you probably should not care about Legal XML or technical standards. However, if you are a practicing lawyer, it is likely that you have clients who increasingly use

electronic means of communications and they expect you to communicate electronically as well. It is also likely that your competitors are moving slowly in the technical automation direction and they may use technology to out-perform you. Further, governments have a strong interest in moving to electronic communications because, over the long-term, running an electronic business should be cheaper than running a paper business. This should benefit taxpayers. Increasingly, therefore, you will be expected to communicate with other legal actors electronically. This is one reason to care.

Moreover, the common sense question you must ask is how will electronic communication among legal actors take place in the future. The legal industry (lawyers and government alike) are accustomed to forms and paper documents, so it is relatively safe to assume that the "document" paradigm will continue in the electronic legal world, at least in the early stages of its evolution. In the paper world, at least in the U.S., the standard is 8 ½" by 11" white paper with black and white ink. In the electronic world, at least today, Word and Word Perfect documents are the accepted currency. XML documents, because they contain granular pieces of information, rather then generic chunks of it, has the potential to greatly complicate communications among legal actors. It is the Tower of Babel problem. If you must communicate electronically, then you should at least do it rationally, and that means standards. This is another reason to care.

There is no question that chaos, at least a little bit, is unavoidable. The question, then, is how long the chaos has to last and how much expensive clean-up will take place to achieve a reasonably rational system when everything settles down. Answers to these questions are impossible, because no one can predict the future. However, it is reasonable to conclude that the more organization and standardization that is done in the beginning of this evolutionary process, the better a global system of communications will be in a shorter period of time. Facilitating the standards process will mean better results in a shorter time. This is another reason to care.

So, if you care, what can you do? The answers are relatively simple. Support standards. Invest, with time and money, in the standards process. Purchase products from vendors that support standards. Be reluctant to enter into agreements with vendors that say they support technical standards, but in the same breath cut-off access to information through high tariffs, strict licenses, or claims of intellectual property rights. If a vendor says it supports or uses standards, do not simply believe. You must verify. Do not enter into agreements with vendors that claim intellectual property rights in the XML DTDs or XML Schema they develop or use. If you pay for DTD or Schema development, ensure in your contract that the DTD or Schema belongs to you and attempt to submit the DTD or Schema to Legal XML or some other standards effort. Understand that it is axiomatic that proprietary (for-sale) products will be built

around information standards. While the products will and should cost money, the information standards should be free and open. Open information standards ensure that you can communicate with other legal actors, now and in the future, and it protects you in case the vendor goes out of business or you decide to switch products. Finally, avoid vendors that do not use standards or that attempt to promote de facto, proprietary standards. In short, educate yourself before you make a purchasing or development decision and invest carefully and wisely.