IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TC 2100, CPK 2, 2411

Patent No: 5,838,906

Issued: November 17, 1998

For: Distributed Hypermedia Method for Automatically Invoking External Application Providing Interaction and Display of Embedded Objects within a Hypermedia Document

CITATION OF PRIOR ART UNDER 35 U.S.C. § 301 AND 37 CFR 1.501 IN RELATION TO U.S. PATENT NO. 5,838,906

Mail Stop: Prior Art Department (Citation of Prior Art per 37 CFR 1.501)
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir,

On behalf of the World Wide Web Consortium, the primary standard-setting organization for the World Wide Web,[1] please find enclosed two prior art publications to be included in the file wrapper of U.S. Patent No. 5,838,906 ("the '906 patent") pursuant to 35 U.S.C. § 301 and 37 C.F.R. §1.501. The enclosed publications are prior art to the '906 patent under 35 U.S.C. § 102(b). They were never considered by the United States Patent & Trademark Office during the prosecution of the '906 patent. These publications, taken alone, anticipate at least claims 1, 2, 3, 6, 7 and 8 of the '906 patent, and, taken together with the Mosaic browser that was acknowledged in the patent as prior art, plainly render those claims invalid as obvious under 35 U.S.C. § 103.

As the Commissioner may be aware, the '906 patent is the subject of a patent infringement suit brought by Eolas Technologies, Inc. and the Regents of the University of California (the patent's exclusive licensee and owner, respectively) against Microsoft Corporation. The suit alleged that Microsoft's Internet Explorer, the most widely used program in the world for browsing the World Wide Web, infringed claims of the '906 patent. A jury in that case recently found against Microsoft and awarded Eolas and the University of California in excess of $500 million. Microsoft is appealing that verdict, but has also stated publicly that it intends in any event to redesign Internet Explorer in a manner that it believes plainly does not infringe the '906 patent. Although Microsoft's proposed redesign, as we understand it, involves only a small portion of

[1] The World Wide Web is a network of information resources that can be accessed through the Internet. A list of the member companies of the World Wide Web Consortium is available at http://www.w3.org/Consortium/Member/List.

Internet Explorer, it would render Microsoft's browser incompatible with globally-accepted standards and impair the operation of millions of Web pages. The cost to the larger World Wide Web community of fixing the problems created by such a change to Internet Explorer is incalculable, but would likely require changes to millions of Web pages, as well as changes to Web page authoring tools and other software and systems designed for the World Wide Web. This enormous expense and attendant incalculable disruption, not to mention the threat the '906 patent as construed by the court poses to other browsers widely used in the Web community, are completely unwarranted because we strongly believe that the '906 patent is invalid in view of prior art, submitted herewith, that was never previously considered by the United States Patent & Trademark Office. While we understand that the submitted prior art was introduced during the course of the recent trial proceedings, the issue of whether it renders the '906 patent invalid was never considered.[2] In view of the pervasive negative impact of the '906 patent on the larger World Wide Web community, which is unwarranted in view of the patent's invalidity, the World Wide Web Consortium believes that the Director should, on his initiative, commence a reexamination of the '906 patent.

The '906 patent is generally directed to a Web browser able to invoke external programs to display portions of a Web page that the browser cannot directly display itself. A Web browser may not be capable of displaying certain types of image data, for example, in which case the browser would invoke a separate program that is capable of doing so. The sole difference between the web browser described in the '906 patent and typical browsers that the patent acknowledges as prior art, is that with prior art browsers, the image in such cases is displayed in its own window, separate from the main browser window, whereas, with the '906 browser the image is displayed in the same window as the rest of the Web page, without the need for a separate window. But that feature (i.e., displaying, or embedding, an image generated by an external program in the same window as the rest of a Web page) had already been described in the prior art publications submitted herewith and was known to the Web development community. The claims of the '906 patent are therefore plainly obvious in view of this prior art.

Even prior to the development of this feature in Web browsers, software developers had recognized the usefulness of adding the same functionality to prior art word processing programs, which display documents instead of Web pages. For example, more than a year before the '906 patent was filed, a word processing program called Write, provided with Microsoft Windows 3.1, enabled users to embed into Write documents graphic images created with the Paint program. The Write program would invoke the Paint program to display the illustration within the same window as the rest of the document. The '906 patent thus added nothing to the art — it only applied a well known concept in the display of documents to the display of Web pages, and even then, did so after the enclosed Raggett publications had disclosed the same thing for web pages.

The two enclosed references are printed publications published more than one year prior to the filing date of the '906 patent. Each is therefore prior art to the '906 patent under 35 U.S.C. § 102(b). Neither reference was cited, made of record or considered during the prosecution of the '906 patent. One set of copies is provided for inclusion in the file wrapper of the '906 patent. The second set of copies is provided to permit service by the Office on the patent owner.

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[2] We understand the court entered a judgment as a matter of law that other prior art (but not the two Raggett publications) differed from the claimed subject matter and that the issue of invalidity over the Raggett publications was not put to the jury or otherwise considered.

The Raggett I and Raggett II Publications

The two enclosed publications relate to HTML+, a proposed specification extending the features of Hypertext Markup Language ("HTML"), the standard language in which Web pages were, and still are, written. The first publication ("*Raggett I*," Exhibit A hereto) is a draft of the HTML+ specification, which was made publicly available for comment on July 23, 1993. *Raggett I* was authored by Dave Raggett, a researcher at Hewlett Packard Laboratories, who attempted in that document to pull together comments regarding extensions to HTML from the participants in www-talk, a public mailing list hosted by Tim Berners-Lee, the founder of the Web and now the Director of the World Wide Web Consortium. The second publication ("*Raggett II*," Exhibit B hereto) is a message posted on June 14, 1993 to the public www-talk mailing list, describing the EMBED tag in HTML+. The EMBED tag described in *Raggett I* and *II* is identical in all material respects to the EMBED tag described in the '906 patent, which in turn was the basis for its claims.

As described in *Raggett I*, the EMBED tag enables a browser to display in-line (i.e. without going to a separate browser window) information rendered by an external application or external shared library. That is, it enabled the browser to display the information rendered by the external application, or shared library, in the same window displaying the information rendered by the browser. (*Raggett I*, p. 6, last para.). The example given in *Raggett I* is the display by a browser of an equation rendered using EQN, a program that formats and displays mathematical equations:

<embed type="application/eqn">2 pi int sin (omega t)dt </embed>

Specifically, in this example, "*2 pi int sin (omega t)dt*" is the embedded data to be rendered as a formatted equation and "*type="application/eqn"*" specifies the external program, EQN, capable of rendering that data. *Raggett I* also described using the EMBED tag in combination with the FIG tag in order to display in-line images having data formats that were not recognized by the browser. (*Raggett I*, p. 12).

The particular external program, or shared library, that must be used to render the data in the EMBED tag is identified by the TYPE attribute of the EMBED tag. *Raggett I* used the well-known MIME protocol to identify, locate and invoke an external program or shared library capable of rendering data of the specified type. (*See id.* ("the *type* attribute specifies a registered MIME content type and is used by the browser to identify the appropriate shared library or external filter to use to render the embedded data, e.g., by returning a pixmap")). As is the case with all other HTML tags described in *Raggett I*, the browser performs the related operations for the disclosed EMBED tag automatically upon parsing the tag, without user input. *Raggett I* further disclosed the use of external editor programs that allow users to interact with the displayed object data within the document. (*See id.* ("Sophistocated [sic] browsers can link to external editors for updating and revising embedded data")). The '906 patent discloses a comparable TYPE attribute of an EMBED tag (Table II) and use of the MIME protocol for matching the type information to an external program for displaying foreign data within a Web browser window, precisely as earlier described in *Raggett I*.

Raggett II further explained that the embedded, or "foreign," data that is to be rendered in-line does not need to be contained within the EMBED tag, as in the example in *Raggett I*, but may instead be located in a separate file referenced by a URL. (*See Raggett II*, last sentence). A URL, or Uniform Resource Locator, specifies the location of a file anywhere on the Internet. In addition,

Raggett II repeated the operative description of the EMBED tag operation from *Raggett I* and provided multiple suggestions for implementing the EMBED tag operation. For example, it explained how to bind a MIME type to the appropriate external rendering program ("e.g. via X resources or a config file") and provided suggestions for implementing the external programs (for example, via "separate programs driven via pipes and sdin/stdout or as dynamically linked library modules (Windows DLLs)").

Raggett I also explained that HTML+, including the EMBED tag, is "for use within the World Wide Web" and, in particular, that "[i]nformation browsers can display information . . . in HTML+ format." *Raggett I* at page 1. It further explained that the World Wide Web is a client-server environment in which hypermedia documents are retrieved across the Internet. *Raggett I* at page 1 ("The World Wide Web is a wide area client-server architecture for retrieving hypermedia documents across the Internet.").

Raggett I was widely disseminated in 1993 by and to, among others, the leaders in the effort to standardize the World Wide Web, including the founding participants in the World Wide Web Consortium, again today's leading standard-setting organization for the World Wide Web. The publication was, has been and continues to be available to all interested persons through the Internet and through other means since on or prior to July 23, 1993. As such, it is a "printed publication" within the meaning of 35 U.S.C. §102 (b). *See* M.P.E.P. § 2128 (2003) (stating, in a section entitled "ELECTRONIC PUBLICATIONS AS PRIOR ART: Status as a 'Printed Publication'" that: "An electronic publication, including an on-line database or Internet publication, is considered to be a 'printed publication' within the meaning of 35 U.S.C. 102(a) and (b) provided the publication was accessible to persons concerned with the art to which the document relates."). The effective date of the printed publication is the date of its availability; namely, at least as early as July 23, 1993. *See* M.P.E.P. § 2128 (stating, in section entitled "ELECTRONIC PUBLICATIONS AS PRIOR ART: Date of Availability" that: "Prior art disclosures on the Internet or on an on-line database are considered to be publicly available as of the date the item was publicly posted. If the publication does not include a publication date (or retrieval date), it cannot be relied upon as prior art under 35 U.S.C. 102(a) or (b)."). A dated copy of the document currently can be retrieved from the Cite Seer: Scientific Research Digital Library site via http://citeseer.nj.nec.com/raggett93html.html (a pdf version of *Raggett I*, which can be viewed using Adobe Acrobat, can be retrieved by clicking on the "PDF" hyperlink located in the upper right corner of the Web page). Also, dated entries in the WWW-TALK archives relating to provisions of the HTML+ specification, as well as the original posting of the July 23, 1993 HTML+ specification, are currently available on-line at http://ksi.cpsc.ucalgary.ca/archives/WWW-TALK/www-talk-1993q2.messages/467.html and http://ksi.cpsc.ucalgary.ca/archives/WWW-TALK/www-talk-1993q3.messages/282.html.

Raggett II was also widely disseminated and publicly available through the Internet and through other means at least since June 14, 1993, and is currently available on-line at http://ksi.cpsc.ucalgary.ca/archives/WWW-TALK/www-talk-1993q2.messages/467.html. It is a "printed publication" within the meaning of 35 U.S.C. §102(b) because it was a "contribution" to "electronic bulletin boards, message systems, and discussion lists" that were "accessible to the persons concerned with the art to which the document relates" when it was posted to the WWW-Talk list (see, e.g., M.P.E.P. §§ 707.05(e), 2128).[3] It enjoys prior art effect as of the date of its

[3] For instance, a review of the University of Calgary archive site containing this posting demonstrates that more than 1,000 such postings were made during the three months surrounding the posting of the July 23rd HTML+ Specification (*Raggett I*) by the very people that were

posting (i.e., June 14, 1993), pursuant to M.P.E.P. § 2128 (see, e.g., "ELECTRONIC PUBLICATIONS AS PRIOR ART: Date of Availability").

The NSCA Mosaic Web Browser and Other Acknowledged Prior Art

The '906 patent acknowledges that Web browsers were in the prior art and in fact describes its alleged invention in terms of modifications to one such prior art browser, the NCSA Mosaic browser, Version 2.4. *See, e.g.*, '906 patent, column 3, lines 9 to 12 (stating that "An example of a browser program is the National Center for Supercomputing Application's (NCSA) Mosaic software developed by the University of Illinois at Urbana/Champaign, Ill."); *see also id.*, column 8, lines 9 to 12 ("[t]he source code in Appendix A includes NCSA Mosaic version 2.4 source code along with modifications to the source code to implement the present invention")(emphasis added); *id.*, column 13, lines 43 to 46 (stating "that much of the source code in is [sic] pre-existing NCSA Mosaic code" and that "[o]nly those portions of the source code that relate to the new functionality discussed in this specification should be considered as part of the invention."). The patent thus acknowledges that the features of Web browsers, at least to the degree reflected in version 2.4 of the NCSA Mosaic Web browser, were prior art to the claimed inventions.

NSCA Mosaic Web browser, version 2.4, like all Web browsers, is a computer program that enabled users to retrieve documents over the Internet and display those documents on a computer monitor. Such documents may contain, for example, "an icon, or other indicator, within the text" linked to a particular image file that users "may select ... to obtain the full image." (See '906 patent, column 2, line 64 to 65, column 3, lines 2 to 3). When a user selects such an indicator, the Mosaic program "retrieves the corresponding full image ... and displays it by using external software" "in a separate window." (*Id.*, column 3, lines 5-7, 16-18; *see also* column 2, line 56 through column 3, line 26 (describing the capabilities of the Mosaic browser, among others).

Differences Between the Claimed Invention and the Prior Art

The sole difference between claims 1 and 6[4] and the NCSA Mosaic browser, Version 2.4, is that the claims require a browser to process a so-called "embed text format," and the Mosaic browser did not have this capability as claimed. In particular, the claimed browser must process an "embed text format" that specifies the location of an "object external" to a hypermedia document (*i.e.*, a document of the type typically displayed by browsers, containing text as well as non-text portions such as graphics, video, sound, etc.). The browser in turn utilizes "type information" associated with the external object to identify, locate and automatically invoke an external "application" that enables the browser to display the object within the hypermedia document being displayed in a browser-controlled window. The '906 patent asserts that the "embed text format" is an improvement over the "helper application" technology employed by prior art browsers such as

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developing the World Wide Web at the time. (See <http://ksi.cpsc.ucalgary.ca/archives/WWW-TALK/www-talk-1993q3.index.html>.) Moreover, the HTML+ Specification itself asks that comments be sent "to the WWW discussion group: www-talk@nxoc01.cern.ch." (*Raggett I* at page 1, footnote 1.)

[4] Note that claims 1 and 6 are nearly identical but for the type of invention (i.e., claim 1 claims a process, whereas claim 6 is directed to a "computer program product for use in...").

the Mosaic program in which the browser launched an external program in a separate window to display data that it cannot process natively. *See, e.g.,* '906 patent, column 3, lines 2 to 20.

The '906 patent describes the "embed text format" functionality in terms of an EMBED tag. *See, in particular,* '906 patent, column 12, line 54 and Column 13, line 31, Table II and descriptive text. The described EMBED tag has an HREF attribute for specifying the location (e.g., a uniform resource locator, or URL) of an object to be displayed and a TYPE attribute for the MIME type of the object data, which the browser uses to identify, locate and launch an associated application to render that data.

In the context of independent claims 1 and 6, the NCSA Mosaic browser, version 2.4, is a "computer program product" (e.g., a Web browser) that is "embodied" in a "computer usable medium" (e.g., installed in a computer or contained on a disk) for use in a "distributed hypermedia environment" having "at least one client workstation and one network server" (e.g., the Internet). The Mosaic program can run on "said client workstation" to "parse[] a first distributed hypermedia document" (e.g., an HTML document) "received over" the Internet to "identify text formats" (e.g., HTML tags and elements) and "respond[] to predetermined text formats to initiate processing specified by said text formats" in the hypermedia document in order "to display" the document in a browser window on "said client workstation." Furthermore, the Mosaic program can locate "an external object" having "type information associated with it utilized by said browser to identify and to locate an executable application external to" said hypermedia document. The Mosaic program can "invoke" said external application (e.g., an "external editor") "to display" the "external object." As implemented in Mosaic version 2.4, that invocation led to the invoked object being displayed in another window, as opposed to within the browser window displaying the hypermedia document as required by the claims, when the user selected a hyperlink to the external object (as opposed to "automatically" as required by the claims).[5]

The only claim limitation not explicitly disclosed, described and implemented in the admittedly prior art Mosaic browser is the "embed text format" feature, in which a browser "automatically invoke[s]" an external application "to display" an external object within the browser window displaying the hypermedia document. That feature, however, is plainly disclosed in *Raggett I* and *Raggett II* — they specifically describe a substantially identical HTML "embed" tag for automatically invoking an external program to render interactive objects in-line in an HTML document. *Raggett II*, in particular, specifically stated that external, or foreign, data (*i.e.*, an external object) can be contained in a separate file referenced, for example by a URL. Moreover, the ability of a Web browser to retrieve and process data from both local and non-local sources is an inherent feature of such browsers. Indeed, one of the first applications of HTML/Web browsers was the rendering in a document displayed in a single window of text and images, where the image data was contained in files separate from those containing the text.

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[5] *Raggett I*, for example, also disclosed these same features as the Mosaic Version 2.4 browser. In particular, it disclosed an "information browser[]," *i.e.*, a "computer program product," that can be used to display documents in HTML+ format (a successor to the HTML format then widely in use). *Raggett* I at pages 1-2. It also explained the HTML+ is "for use within the World Wide Web" and that the World Wide Web "is a wide area client-server architecture for retrieving hypermedia documents across the Internet. *Id.* at page 1. It also described "pars[ing] hypermedia documents" (*see id.* at page 3), and "utiliz[ing] [a] browser to display" a hypermedia document (*see id.* at page 1). In general, all the basic browser functions of Mosaic Version 2.4 are inherent in *Raggett I* since such functions are required to display HTML-type hypermedia documents.

An element by element comparison of claim 6-8 to the acknowledged and newly cited prior art is provided below in Table I. It shows that each and every element of each of claims 6-8 is present in the Mosaic version 2.4 browser in combination with *Raggett I* and *Raggett II*, and in *Raggett I* and *II* themselves (*i.e.*, even without relying on Mosaic version 2.4). Claims 1-3 are comparable to claims 6-8, respectively, and each and every element of those claims are also present in the acknowledged and newly cited prior art for the same reasons provided in Table I.

Table I

	Acknowledged Prior Art	**Newly Cited Art**
6. A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising: *a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising: computer readable program code for causing said client workstation to execute a browser application*	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (describing the Internet, and the use and function of browser programs, and noting that Mosaic is "an example of a browser program").	*Raggett I* at page 1 (explaining that "HTML+ is a simple SGML based format for wide-area hypertext documents, for use within the World Wide Web," that "[t]he World Wide Web is a wide area client-server architecture for retrieving hypermedia documents across the Internet," and that "[i]nformation browsers can display information ... in the HTML+ format")
to parse a first distributed hypermedia document to identify text formats included in said distributed hypermedia document and to respond to predetermined text formats to initiate processes specified by said text formats;	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (same).	*Raggett I* at page 3 (discussing "Parsing HTML+ Documents").
computer readable program code for causing said client workstation to utilize said browser to display, on said client workstation, at least a portion of a first hypermedia document received over said network from said server,	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (same).	*Raggett I* at page 1 (explaining that "HTML+ is a simple SGML based format for wide-area hypertext documents, for use within the World Wide Web," and that "[t]he World Wide Web is a wide area client-server architecture for retrieving hypermedia documents across the Internet").
wherein the portion of said first hypermedia document is displayed within a first browser-controlled	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (same).	*Raggett I* at page 1 (explaining that "[i]nformation browsers can

Table I		
	Acknowledged Prior Art	**Newly Cited Art**
window on said client workstation,		display information … in the HTML+ format")
wherein said first distributed hypermedia document includes an embed text format, located at a first location in said first distributed hypermedia document, that specifies the location of at least a portion of an object external to the first distributed hypermedia document,	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (same).	*See Raggett II* at pages 1-2 (providing an example of an EMBED tag (*i.e.*, an embedded text format) and stating that the foreign (*i.e.*, embedded) data can be put "in a separate file referenced by a URL"). *See also Raggett I* at p. 12 (explaining that the image for the "fig" tag, which is used to display, e.g., images and graphics, can be "defined by a link to an external document.")
wherein said object has type information associated with it utilized by said browser to identify and locate an executable application external to the first distributed hypermedia document	Mosaic, see '906 patent at column 3, lines 5 to 6 (the Mosaic program "retrieves the corresponding full image … and displays it by using external software").	*Raggett I* at page 6 (explaining that the "type attribute" to the EMBED tag "specifies a registered MIME content type and is used by the browser to identify the appropriate shared library or external filter to use to render the embedded data, e.g., by returning a pixmap."); *Raggett II* at page 1 (explaining that "[t]he browser identifies the format of the embedded data from the "type" attribute [to the EMBED tag], specified as a MIME content type;" and further explaining that the type information is used to identify, e.g., a "separate program[]" or "dynamically linked library" for rendering the data).
and wherein said embed text format is parsed by said browser to automatically invoke said executable application on said client workstation	Mosaic, see '906 patent at column 1, line 19 to column 3, line 51 (noting that Mosaic is "an example of a browser program" and, as such, parses HTML documents accessed).	*Raggett I* at pages 3 and 6 (discussing "Parsing HTML+ Documents" generally, and "the EMBED tag" specifically, as part of the automatic processing of an HTML+ document by a Web

Table I		
	Acknowledged Prior Art	**Newly Cited Art**
		browser); *Raggett II* at page 1 (explaining that "[t]he browser identifies the format of the embedded data from the "type" attribute, specified as a MIME content type."). As explained above, *Raggett I* and *II* describe using the "type" attribute to the EMBED tag to identify an external application program or shared library capable of rendering the embedded data. The browser then invokes the identified application or shared library, which in turn returns, for example, "a pixmap." *Raggett I*, p. 6; *Raggett II, p. 1.*
in order to display said object	Mosaic, see '906 patent at column 3, lines 5 to 6 (the Mosaic program "retrieves the corresponding full image … and displays it by using external software").	The purpose of the EMBED tag described in *Raggett I* and *Raggett II* is to display in-line information rendered by an external application program or shared library. *See, e.g., Raggett I* at page 6 (explaining that the "appropriate shared library or external filter [*i.e.*, application program]" is used to "render the embedded data, e.g. by returning a bitmap."). *See also, e.g. Raggett II* at page 1 (explaining that "[b]rowsers can then be upgraded to display new formats without changing their code at all").
and enable interactive processing of said object		*Raggett I* at page 6, line 47 ("Sophistocated [sic] browsers can link to external editors for updating and revising embedded data.").
within a display area created at said first location within the portion of said first distributed hypermedia		*Raggett II* at page 1 (explaining in response to emails regarding embedding

Table I		
	Acknowledged Prior Art	**Newly Cited Art**
document being displayed in said first browser-controlled window.		equations and encapsulated Postscript within documents to be displayed on the Web (*e.g.*, HTML documents) that "both of these will be possible with the HTML+ DTD, by using the capability to embed foreign formats inline in the HTML+ source ...") (emphasis added). *See also Raggett I* at pages 6 and 12 (describing the EMBED tag, which is used to embed data having an external format within a Web page); *see also, id.*, at page 34 (explaining, in a section entitled "Notes for Implementers," that "[i]t is generally better to avoid displaying the retrieved document in a new window, unless explicitly requested by the user.").
7. The computer program product of claim 6, wherein said executable application is a controllable application and further compising: *computer readable program code for causing said client workstation to interactively control said controllable application on said client workstation via inter-process communications between said browser and said controllable application.*		*See Raggett I* at page 6 (describing inter-process communication between the browser and an external editor: "[s]ophistocated [sic] browsers can link to external editors for creating or revising embedded data"). Also *Raggett I* and *II* describe having the browser use shared libraries, such as DLLs, for rendering data in external formats. *Raggett I* at page 6, *Raggett II* at page 1. Such shared libraries would necessarily be controlled through inter-process communications with the browser that invoked them since shared libraries are not independently executable

Table I		
	Acknowledged Prior Art	**Newly Cited Art**
		(that is, they cannot execute unless they are invoked by another program, such as the browser here).
8. The computer program product of claim 7, wherein the communications to interactively control said controllable application continue to be exchanged between the controllable application and the browser even after the controllable application program has been launched.		Again *Raggett I* at page 6 explains that "[s]ophistocated [sic] browsers can link to external editors for creating or revising embedded data". Since the browser displays information rendered by the external program, here the editor, the operation of such an external editor plainly requires continuing communication between the browser and the editor. Otherwise a user would not see displayed the changes being made to the embedded data during the process of revising that data.

Raggett I and _II_ Anticipate Claims 1-3 and 6-8

As shown in Table I above, *Raggett I* and *II* collectively disclose each and every element of claims 1-3 and 6-8. In addition, *Raggett I* and *II* comprise a single prior art publication because both were posted on or incorporated by reference in the same Website at the same time more than a year before the filing date of the '906 patent. Specifically, all messages sent to the www-talk email list, including *Raggett II* and a message containing a link to *Raggett I* (*see* Exhibit C hereto), were also posted on the http://eies2.njit.edu:80/wmail.html Website (*see* Exhibit D hereto). Thus, as of July 23, 1993, both *Raggett I* (which is dated July 23, 1993) and *Raggett II* (which is dated June 14, 1993) were effectively published on a single Website. Since *Raggett I* and *II* comprise a single publication and disclose each and every element of claims 1-3 and 6-8, they thus anticipate those claims.

Claims 1-3 and 6-8 are also Obvious Over the Mosaic Version 2.4 Browser in View of _Raggett I_ and _Raggett II_

In addition to being anticipated by *Raggett I* and *II*, as set forth above, claims 1-3 and 6-8 are also obvious over the acknowledged Mosaic browser in view of *Raggett I* and *II*. *Raggett I* and *II* specifically teach those of ordinary skill in the art to modify a prior art browser, such as the

Mosaic browser, to incorporate the allegedly new features of claims 1-3 and 6-8, rendering those claims obvious.

The Level of Ordinary Skill in the Art

The person of ordinary skill in the relevant art to the claimed invention is a software programmer with at least a bachelor's degree in Computer Science, and five years of programming experience in Internet, Web and browser technology, including specific experience with programming in HTML. However, even assuming a lower level of ordinary skill in the art, the claims of the '906 patent would still have been obvious, given that the enclosed prior art describe precisely what the '906 patent claims as its invention in precisely the same context.

The Prima Facie Obviousness of Claims 1-3 and 6-8

The printed publications provided herewith were not considered by the PTO during the original prosecution of the '906 patent. When considered in view of the acknowledged prior art (e.g., Mosaic Web browser, version 2.4) by a person of ordinary skill in the art, they render the claimed invention defined by claims 1-3 and 6-8 of the patent *prima facie* obvious.

As described above, the only difference between the claimed invention and the prior art Mosaic browser is that the Mosaic browser was not capable of processing an "embed text format" in a hypermedia document to "automatically invoke" an external application "to display" an external object within the browser window displaying the hypermedia document, as claimed. But *Raggett I* and *Raggett II* however specifically disclose implementing this functionality in a Web browser.

Raggett I and *II* thus provided specific motivation and guidance to a person of ordinary skill to modify the acknowledged prior art NCSA Mosaic version 2.4 browser (and other prior art browsers) to arrive at the claimed invention. Indeed, *Raggett I* (the HTML+ specification), which was publicly disseminated more than a year prior to the filing date of the '906 patent, required Web browsers to possess this functionality in order to be compliant with the proposed specification. As such, it is difficult to envision a document that could have provided greater motivation to modify a Web browser to provide the features called for therein. Furthermore, as acknowledged and admitted by the inventors of the '906 patent (*see, e.g.*, column 13, lines 51 to 59 and column 16, lines 51 to 53), the act of modifying the Mosaic prior art browser to implement the features called for by *Raggett I* and *II* was well within the abilities of a person having an ordinary level of skill in the relevant art (e.g., software programming). *Raggett I* and *Raggett II,* considered individually or in combination, in view of the acknowledged prior art, therefore establish a *prima facie* case of obviousness of claims 1-3 and 6-8.

Further comparison of the '906 patent specification to *Raggett I* and *Raggett II* leaves no doubt as to the accuracy of this conclusion. As described above, Table II (column 12, line 54, with descriptive text through column 13, line 31) of the '906 patent shows the preferred embodiment of an EMBED tag with HREF and TYPE attributes, which the browser uses to identify, locate and launch associated external applications. *Raggett I* and *II* use nearly identical language (*see, e.g. Raggett I*, page 6; *Raggett II*, last sentence) to describe the attributes of the EMBED tag. The enclosed publications thus disclose not only the same functionality but precisely the same means of

implementing that functionality in Web browsers (i.e., the same "EMBED" tag is used to initiate the same browser behavior that provided the same result as the claimed subject matter of the '906 patent).

Moreover, the enclosed publications enable, as the '906 patent claims, Web browsers to provide the user with more functionality (e.g., through displaying and/or editing new data formats) without changing the browser code. Compare, '906 patent, column 11, lines 52 to 55, *Raggett I*, page 6, and *Raggett II*, page 1. Again, the enclosed publications were promulgated to the World Wide Web community more than a year before the filing of the '906 patent for the purpose of implementing this very same capability in prior art Web browsers.

Thus, the two printed publications provided herewith, taken in view of the admittedly prior art NCSA Mosaic version 2.4 browser, provided specific motivation and guidance to persons of ordinary skill to modify the NCSA Mosaic version 2.4 browser to arrive at the claimed invention. As such, these disclosures support a *prima facie* finding of obviousness of claims 1-3 and 6-8 of the '906 patent and render those claims obvious to a person of skill in the art.

Conclusion

The two *Raggett* publications provided herewith anticipate at least claims 1-3 and 6-8 of the '906 patent. In addition, the acknowledged prior art Mosaic version 2.4 browser, when considered together with the two *Raggett* publications, render at least claims 1-3 and 6-8 obvious. In view of the invalidity of these claims and the considerable adverse impact the '906 patent will have on the larger World Wide Web community, a Director initiated reexamination is appropriate.

Respectfully submitted,

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