February 18, 2010

**VIA U.S. MAIL**

Irving Tsai

**Re:    Your Seminal Inventions**

Dear Mr. Tsai:

I am a patent attorney in . I recently came across your patents, and some third-party description of the story behind them on the web. It is plainly clear that your patents represent seminal, if not *the* seminal, innovations with regard to basic operation of the Internet and the Web. However, I noticed that your patents have never been assigned, and while it is not likely public, I have not found any information indicating that you have ever licensed, sold or enforced your patent rights. Given the significance of your inventions, that surprised me. I also noticed that in some recent correspondence with the Patent Office, you suggested that

If you are available and have the inclination, I would appreciate the chance to discuss your inventions and the stories behind your work.

Sincerely,

http://www.pcadvisor.co.uk/news/index.cfm?RSS&NewsID=3203729

October 10, 2009

# Timeline: 15 years of the web browser

## Important points in the history of the web browser

Carolyn Duffy Marsan

**Here is a look back at the 15 years of wars, lawsuits, and standards the web browser has brought us.**

October 13 marks the 15th birthday of the web browser. This is the date the first commercial web browser, Netscape Navigator, was released in beta.

While researchers including World Wide Web inventor Tim Berners-Lee and a team at the National Center for Supercomputing Applications created Unix browsers between 1991 and 1994, Netscape Navigator made this small piece of desktop software a household name.

By allowing average users to view text and images posted on websites, Netscape Navigator helped launch the internet era along with multiple browser wars, government-led lawsuits and many software innovations.

Here is a look back at the most important points in the 15 years of wars, lawsuits, and standards the web browser has brought us.

## October 13, 1994



Mosaic Communications - later renamed Netscape Communications - releases the beta version of its web browser, called Mosaic Netscape 0.9.

It was based on the Mosaic code developed by the NCSA, and Mosaic co-author Marc Andreessen was a co-founder of Netscape.

The browser was later renamed Netscape Navigator. Version 1.0 was released on December 15.

The World Wide Web Consortium, usually referred to as the
"W3C" (because it has 3 "w's" + 1 "c"), is the custodian of the
global Web.  They are the governing body of the standards the Web
runs on.  Tim Berners Lee, inventor of the World Wide Web, is its
Director and has his office in the W3C's US headquarters in the
Gates Tower of the artificial intelligence lab at MIT.  The W3C
maintains an official glossary of terms relating to the Web,
(here:  http://www.w3.org/Terms )

In the application filed October 15, 1993 (which US 7,016,084
comes from) you will find that the spec conforms to the W3C's
definitions.

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**Browser (W3C defined)**

A program which allows a person to read hypertext . The
browser gives some means of viewing the contents of nodes ,
and of navigating from one node to another.

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Hypertext
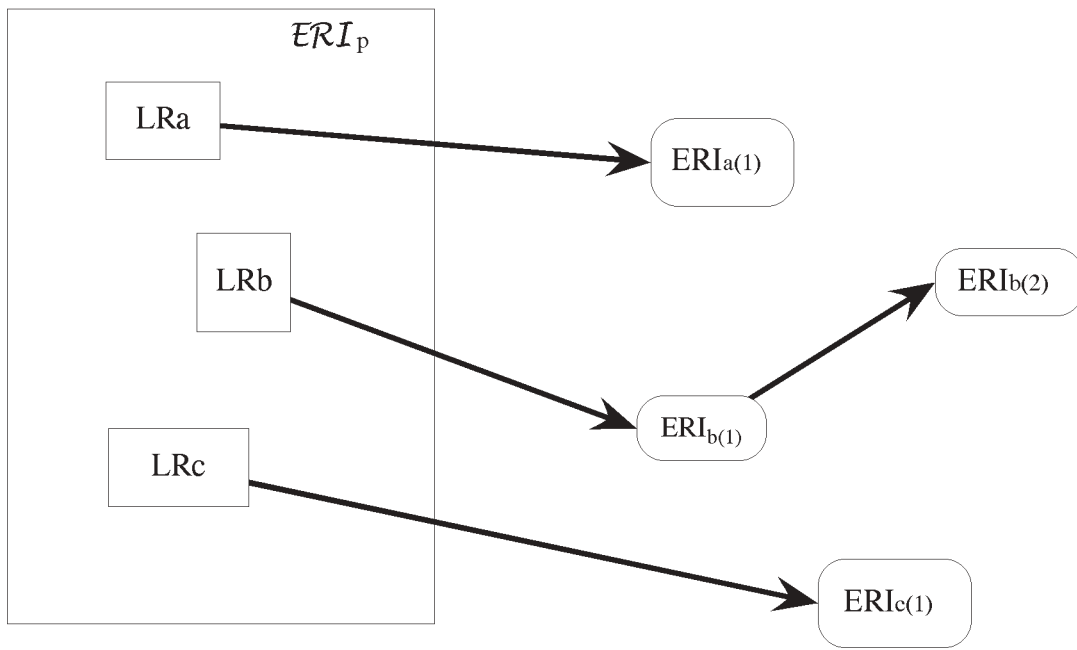Text which is not constrained to be linear.


Hypermedia
MultiMedia Hypertext . HyperMedia and HyperText tend to be used loosely in
place of each other. Media other than text typically include graphics,
sound, and video.

Below I clipped definitions from the World Wide Web Consortium's definitions pages, and overlaid then onto relevant figures from the October 15, 1993 patent filings (US No. 7,016,084), to illustrate level of conformity with W3C definitions.

The whole W3C glossary is appended to pages 9, 10, 11 below

$\mathcal{ERI}_p$

LRa ──────────────→ ERI$_{a(1)}$

LRb

ERI$_{b(2)}$

LRb ──────────────→ ERI$_{b(1)}$ ──→ ERI$_{b(2)}$

LRc ──────────────→ ERI$_{c(1)}$

Hypertext
    Text which is not
constrained to be linear.

Figure 60(a)

| NAR(p) | NAR(a) | NAR(b1,b2) | NAR(c)  ... | NAR(n1,..,nm) |
|---|---|---|---|---|
| Location(p,1) | Location(a,1) | Location(b,1) | Location(c,1) | Location(n,1) |
|  |  | Location(b,2) |  |  |
|  |  |  |  | Location(n,m) |

Figure 60(b)

Navigation
    The process of moving from one node to another through the hypertext web . This is normally done by following links . Various features of a particular browser may make this easier. These include keeping a history of where the user has been, and drawing diagrams of links between nearby nodes.
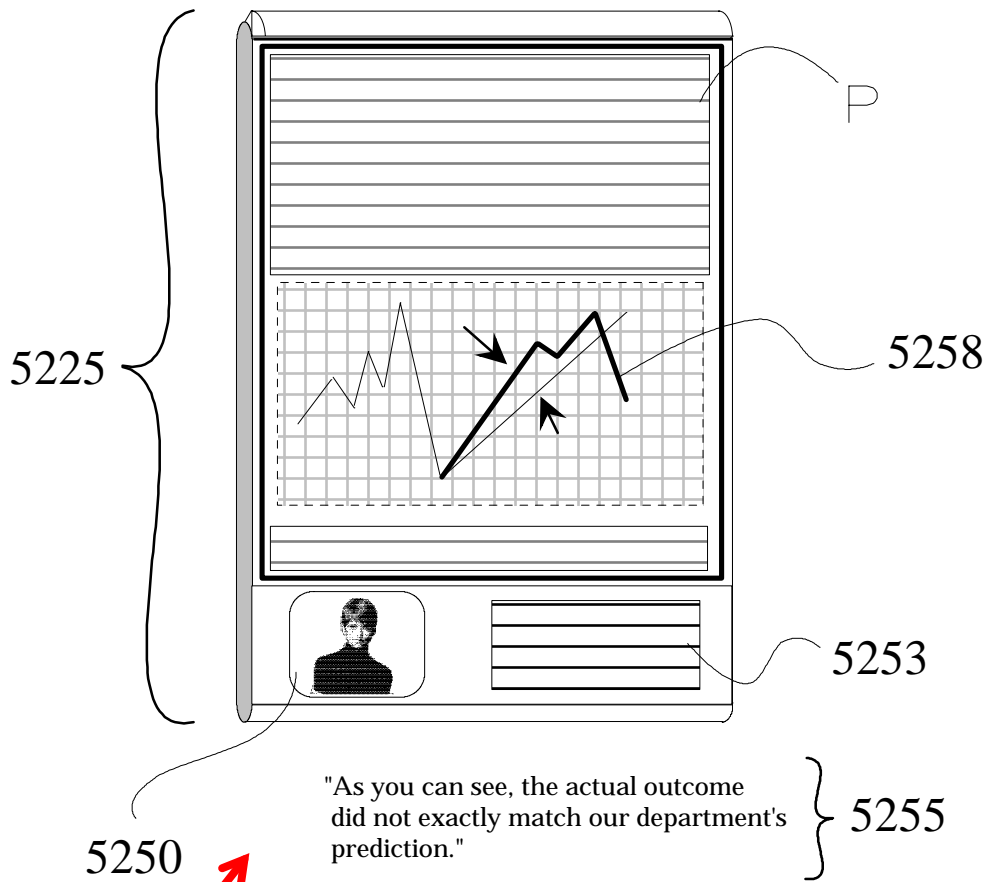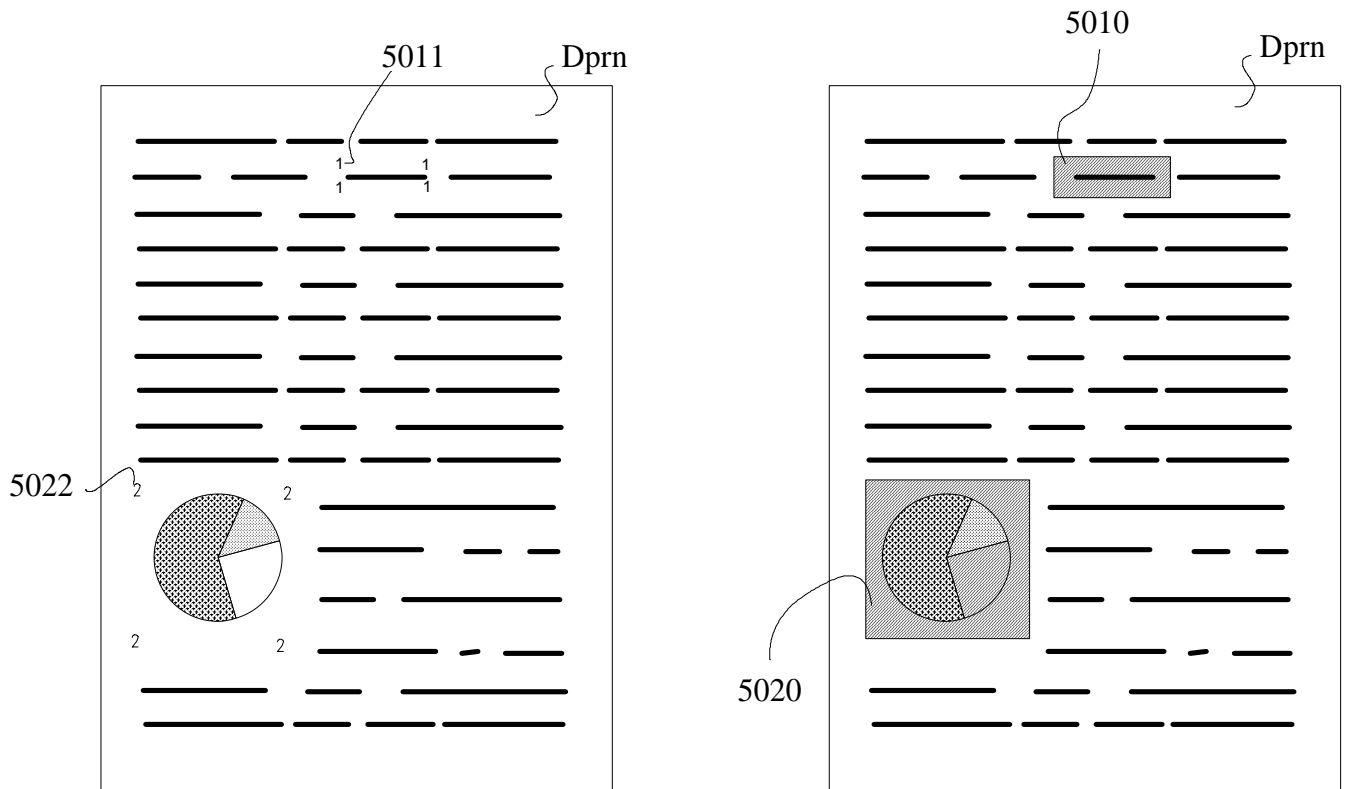
5225

P

5258

5253

"As you can see, the actual outcome did not exactly match our department's prediction." } 5255

5250

## Figure 62

**Browser**

   A program which allows a person to read hypertext . The browser gives some means of viewing the contents of nodes , and of navigating from one node to another.


**Hypermedia**

   MultiMedia Hypertext . HyperMedia and HyperText tend to be used loosely in place of each other. Media other than text typically include graphics, sound, and video.

5011   Dprn

5010   Dprn

5022

5020

Anchor
   An area within the content of a node which is the
source or destination of a link. The anchor may be the
whole of the node content. Typically, clicking a mouse on
an anchor area causes the link to be followed, leaving the
anchor at the opposite end of the link displayed. Anchors
tend to be highlighted in a special way (always, or when
the mouse is over them), or represented by a special
symbol. An anchor may, and often does, correspond to the
whole node. (also sometimes known as "span", "region",
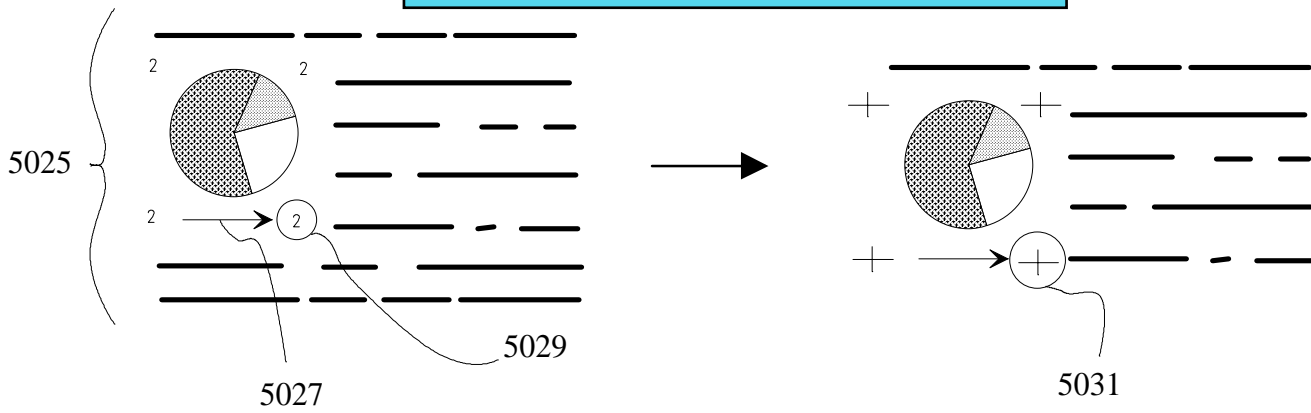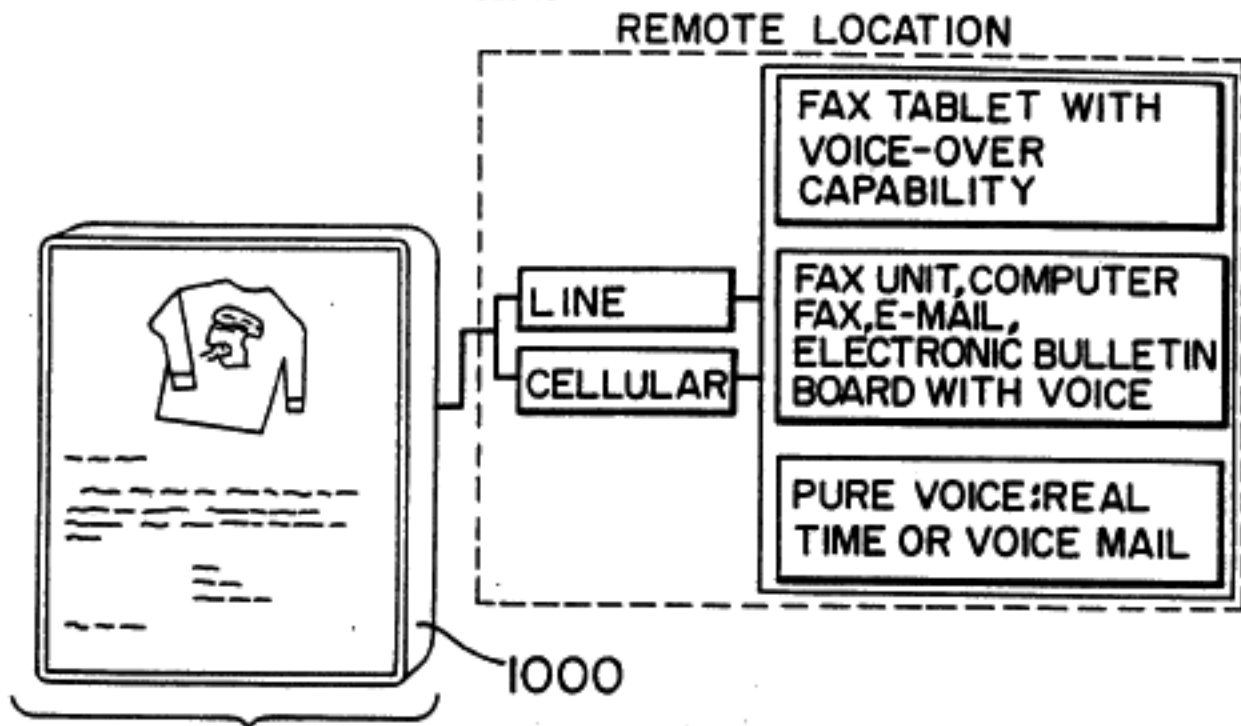"button", or "extent").

5025

5029

5027

5031

Figure 54

REMOTE LOCATION

FAX TABLET WITH
VOICE-OVER
CAPABILITY

LINE

CELLULAR

FAX UNIT,COMPUTER
FAX,E-MAIL,
ELECTRONIC BULLETIN
BOARD WITH VOICE

PURE VOICE:REAL
TIME OR VOICE MAIL

1000

FIG. 43(a)

**External**

A link to a node in a different database.

**Internal**

A link to a node in the same database .

**Database**

We have used this vaguely as a term for a collection of nodes. We imagine management information for one of these being kept in one place and all being accessible by the same server. Links outside this are "external", and those inside are "internal".

# Hypertext Terms

This is a glossary of terms used within the WWW project. In most cases, their use corresponds to conventional use in hypertext circles.

Anchor

    An area within a the content of a node which is the source or destination of a link. The anchor may be the whole of the node content. Typically, clicking a mouse on an anchor area causes the link to be followed, leaving the anchor at the opposite end of the link displayed. Anchors tend to be highlighted in a special way (always, or when the mouse is over them), or represented by a special symbol. An anchor may, and often does, correspond to the whole node. (also sometimes known as "span", "region", "button", or "extent").

Annotation

    The linking of a new commentary node to an existing node. If readers can annotate nodes, then they can immediately provide feedback if the information is misleading, out of date or plain wrong. Thus the quality of the information in the web can be improved. (More...)

Authoring

    A term for the process of writing a document. "Authoring" seems to have come into use in order to emphasise that document production involved more than just writing.

Back link

    A link in one direction implied from the existence of an explicit limk in the other direction. See: Building back-links

Browser

    A program which allows a person to read hypertext . The browser gives some means of viewing the contents of nodes , and of navigating from one node to another.

Button

    An anchor which is the source of a link . Often, but not always, represented on screen to look like a push-button.

Card

    An alternative term for a node in a system (e.g. HyperCard, Notecards) in which the node size is limited to a single page of a limited size.

Client

    A program which requests services of another program. Normally, the browser is a client of a data server.

Cyberspace

    This is the "electronic" world as perceived on a computer screen, the term is often used in opposition to the "real" world. With Web-extensions like VRML and the Cyberspace Protocol, Virtual Reality will one day come to your home computer.

Database

    We have used this vaguely as a term for a collection of nodes. We imagine management information for one of these being kept in one place and all being accessible by the same server. Links outside this are "external", and those inside are "internal". We do not imply anything about how the information shored be stored.

Daemon

    A program which runs independently of, for example the browser . Daemons may perform various management tasks such as building indexes, overviews, and back-links. Under unix, "daemon" is used for " server ", because servers normally run independently.

Document

    A term for a node

collection of nodes on related topics, possible stored or distributed as one. The prefered term in W3 documentation.

Domain
> We have used this specifically for a unit of protection. It could possibly correspond to a database , and in that case would be a better (less vague) term for it.

External
> A link to a node in a different database. See Database

Host
> A computer on a network. We use this term rather than the term " node " which is often used for a document in a hypertext web .

Hypermedia
> MultiMedia Hypertext . HyperMedia and HyperText tend to be used loosely in place of each other. Media other than text typically include graphics, sound, and video. (More...)

Hypertext
> Text which is not constrained to be linear. (More...)

Index
> Something which points at other data; a server facility which provides pointers to particular data as a function of a query; a table of contents of a book in hypertext form. ( More ).

Internal
> A link to a node in the same database . See database .

Link
> A relationship between two anchors , stored in the same or different database . See "Internal" and "External" .

Navigation
> The process of moving from one node to another through the hypertext web . This is normally done by following links . Various features of a particular browser may make this easier. These include keeping a history of where the user has been, and drawing diagrams of links between nearby nodes. (More...)

Node
> A unit of information. Also known as a frame (KMS), card (Hypercard, Notecards). Used with this special meaning in hypertext circles: do not confuse with "node" meaning "network host". For user's benefits, we use the term " document " as this is the nearest term outside the hypertext world.

Protection
> The prevention of unauthorized users from reading, or writing, a particular piece of data. Also known as "authentication", "access control", etc. (More...)

Path
> An ordered set of nodes or anchors which represent a sequence in which a web can be read. A path may represent the sequence a reader actually used, or may be a sequence recommened to the reader by the author.

Reader
> We have used this term for the person who browses, to distinguish him/her from the program ( browser ) which (s)he uses.

Server
> A program which provides a service to another, known as the client . In a hypertext system, a server will provide hypertext information to a browser . See also: daemon .

Tracing
> The automatic finding of nodes by automatic navigation

[(More...)](#)

Versioning

> The storage and management of previous versions of a piece of information, for security, diagnostics, and interest. This is important when many users are allowed to edit the same material. [(More...)](#)

VRML

> Virtual Reality Modeling Language. The term "VRML" had been coined by Dave Ragget at the 1st WWW Conference in Geneva, May 1994. VRML is proposed as a logical markup format for non-proprietary platform independent VR.

Web

> A set of [nodes](#) interconnected by [links](#) . Often, the set of all the nodes which are interconnected. See also [Topology](#).

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