Petitioners' Demonstrative Exhibits

IPR2018-001008/001011 – U.S. Patent No. 9,639,876

IPR2018-001009/001012 - U.S. Patent No. 9,043,228

IPR2018-001010/001014 - U.S. Patent No. 8,515,825

Consolidated Oral Hearing, July 25, 2019 – Denver, Colorado

Summary of Instituted Grounds

Moore IPRs

Three petitions pertain to Moore and the Digital River publications as primary references, and Arnold as the secondary reference.

- IPR2018-001011 –
 U.S. Patent No. 9,639,876
- IPR2018-001012 –
 U.S. Patent No. 9,043,228
- IPR2018-001014 –
 U.S. Patent No. 8,515,825

Loshin IPRs

Three petitions pertain to Loshin as the primary reference, and Moore and the InfoHaus documents as the secondary references.

- IPR2018-001008 –
 U.S. Patent No. 9,639,876
- IPR2018-001009 –
 U.S. Patent No. 9,043,228
- IPR2018-001010 –
 U.S. Patent No. 8,515,825

Summary of Instituted Grounds – Moore IPRs

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Digital River Publications	§ 103(a)	1-5, 7, 8, 11-15, 17, and 18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, 11-18
Moore	§ 102(a)	1-5, 7, 8, 11-15, 17, and 18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, 11-18
Moore and Arnold	§ 103(a)	1, 7, 11, and 17	1, 4, 9, and 12	1, 3, 11, and 13
Moore and the Digital River Publications	§ 103(a)	1-5, 7, 8, 11-15, 17, and 18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, 11-18

Summary of Instituted Grounds – Loshin IPRs

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Loshin	§ 102(b)	1-5, 7, 8, 11-13, and 16-18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, and 11-18
Loshin and the InfoHaus Documents	§ 103(a)	1, 7, 11, 16, and 17	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Loshin and Moore	§ 103(a)	1-5, 7, 8, 11-15, and 17-18	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
- Multi-product searching limitations

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

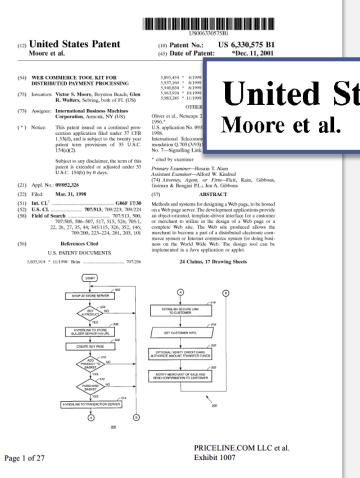
INDEPENDENT CLAIMS

- Common overall appearance
- Providing page pairs for internet transactions

DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
- Multi-product searching limitations

Moore



United States Patent Moore et al.

(10) Patent No.: US 6,330,575 B1

(45) **Date of Patent:** *Dec. 11, 2001

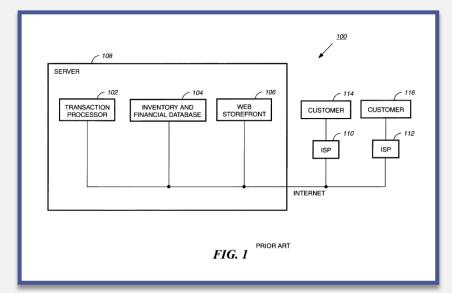
(57) ABSTRACT

Methods and systems for designing a Web page, to be hosted on a Web page server. The development applications provide an object-oriented, template-driven interface for a customer or merchant to utilize in the design of a Web page or a complete Web site. The Web site produced allows the merchant to become a part of a distributed electronic commerce system or Internet commerce system for doing business on the World Wide Web. The design tool can be implemented in a Java application or applet.

Source: Moore (Ex. 1010).

Moore IPRs – Moore Overview

- Discloses a distributed electronic commerce system.
- Identifies as prior art a "non-distributed electronic commerce system for the World Wide Web" as depicted in Figure 1.



Source: Moore (Ex. 1010), FIG. 1.

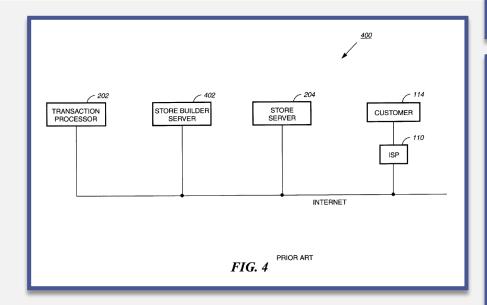
FIG. 1 is a functional block diagram of a non-distributed electronic commerce system for the World Wide Web ("WWW"), according to the prior art.

Referring to FIG. 1, there is shown a system 100, according to the prior art, in which the three functions of product presentation, database management, and transaction processing are contained in one server 108 and are, therefore, not distributed. The server 108 refers to a specific computer.

Source: Moore (Ex. 1010), 3:47-49, 4:23-27.

Moore IPRs – Moore Overview

- Step forward is when and where the web pages are generated and where those pages are served from.
- All pages generated by Development Tool on Store-Builder server.
 - Storefront Web Pages generated ahead of time by Java servlet on Store-Builder Server and served from another server.
 - Buy Web Pages generated by Java servlet and served by Store-Builder server.



The Store-Builder Server receives the price URL, which is encrypted, and a Java "Buy Page" servlet builds a Buy Page from the received HTML **508**. The customer can now

The Tool, as either an applet which would run on top of a browser or as an application, would be downloaded from a Store Builder Server. Referring to FIG. 4, there is shown a distributed electronic commerce system 400 with a Store Builder Server 402. The merchant could download the Java wizard applet to build the pages for the Web storefront, which will reside on the Store Server 204. The Store Builder Server 402 would also contain Java servlets that would receive the HTML from the wizard applet for the storefront pages that the merchant designed and would build the store pages from this HTML. This, of course, would happen when

Source: Moore (Ex. 1010), 5:49-59, 6:23-25, FIG. 4.

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



Common overall appearance

DEPENDENT CLAIMS



Commission limitations



Hierarchical-page electronic catalog limitations



Catalog-searching limitations



Matching-URL limitations



Multi-product searching limitations

• The Institution Decision agreed with Petitioner, noting that "one might reasonably infer that from such generic description that the style implemented by the Development Tool can apply to all pages."

Nevertheless, we emphasize that development of this issue by the parties appears essential. In particular, we expect the parties to take positions with respect to construction of the phrases "relates to overall appearance" and "defining the overall appearance" that we can evaluate and consider in ascertaining whether Moore teaches or suggests the relevant limitations.

- Patent Owner ignores the Board's request to provide any definition for "overall appearance" and distorts the Federal Circuit's guidance on the issue.
- Petitioner closely follows the Federal Circuit's guidance and finds all the hallmarks of a shared Overall Appearance in Moore.

Claim Language – Each independent claim requires a shared "overall appearance."

wherein the visual correspondence relates to overall appearance of the composite web page as compared to the source web page, but excluding the commerce object information and the URL; and

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 1.

(ii) a plurality of visually perceptible elements derived from the retrieved pre-stored data defining an overall appearance of the composite web page that, excluding the information associated with the commerce object, visually corresponds to the source web page,

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 1.

wherein the plurality of visually perceptible elements define an overall appearance of the composite page that, excluding the information associated with the commerce object, visually corresponds to the source web page, and

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 1.

Patent Owner misrepresents the language of its own claims.

In the same decision, the Federal Circuit invalidated certain claims of the grandparent *572 patent as anticipated by Digital River systems, because it held that the *572 patent's claims did not contain "a requirement that the generated composite web page have an "overall match" in appearance with the host website." 773 F.3d at 1254. Patent Owner obtained this patent to cure that omission, and this patent has such an "overall match" claim limitation.

- "Overall match" does not appear in the claims of the '876, '228 or '825 Patents.
- "Overall match" does not appear in the specification of the DDR Patents.
- "Overall" only appears once in the specification of the DDR Patents when describing an "overall transaction."

Source: PO Resp. (IPR2018-01008, Paper 21), 4, 23.

 Patent Owner states that the Federal Circuit did not find that any Digital River page pairs disclosed corresponding overall appearance.

(emphasis added). Because the grandparent '572 patent's claims did not "requir[e] an 'overall match' or a specific number of 'look and feel' elements," id., the Federal Circuit did not—and had no occasion to—find that any Digital River page pairs had a "corresponding overall appearance."

Source: PO Sur-Reply (IPR2018-01008, Paper 25), 3.

• The Federal Circuit clearly stated that Digital River satisfies the "look and feel element," which is described by the court as "convey[ing] an *overall appearance* identifying a website."

The parties' stipulated construction of "look and feel" requires the generated composite web page to include a set of elements from the host website, each of these elements being a "look and feel element" described in the specification that "convey[s] an overall appearance identifying a website." J.A. 542. Consistent with the specification, the stipulated construction defines these "look and feel elements" that "conveyan overall appearance identifying a website" to "include logos, colors, page layout, navigation systems, frames, 'mouse-over' effects, or other elements that are consistent through some or all of a Host's website." Id.; see also #572 patent, 14:11–14. Digital River's SSS elearly satisfies this limitation. For example, Digital River showed the jury a host website that included a stylized logo, a particular background color, and prominent circular icons. J.A. 7502. The SSS generated a prior art composite web page that incorporated each of these "look and feel" elements. J.A. 8856–57; see also J.A. 6172 (host website) and 6171 (SSS-generated prior art composite web page incorporating logo, navigational menu, and color "look and feel" elements). And as explained above, the SSS was consistently promoted and advertised as creating a composite web page that retained the "look and feel" of the host website. E.g., J.A. 6123, 6202, 6320.

Source: DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1254.

- The Federal Circuit provided clear guidance on the meaning of the "look and feel" elements, which was interpreted by the Federal Circuit as meaning "conveying an overall appearance of a website"
- This look and feel elements / overall appearance was conveyed by three elements: "website logo," "background color," and "prominent circular icons."

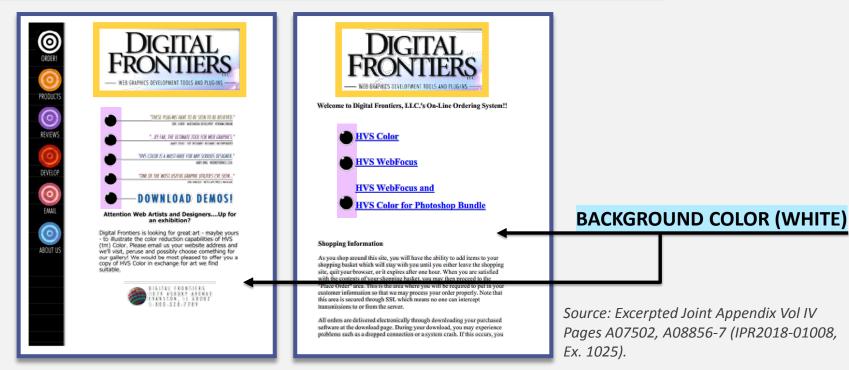
During trial, a Digital River witness testified at length on how the SSS generated composite web pages with "look and feel" elements from host websites, and operated the SSS for the jury. Digital River also showed the jury several composite web pages generated by the SSS for host websites before the earliest priority date of the #572 patent, including a composite web page that incorporated several elements identified in DDR's patents or by DDR's expert at trial as "look and feel elements": the host website's logo, background color, and prominent circular icons. J.A. 8856–57 (composite web page), 7502 (host website); see also J.A. 8858–61 (composite web *1254 page incorporating host website logo, colors, fonts), 6122 (example web page from host website).

- Patent Owner ignores this discussion from the Federal Circuit.
- Moore discloses the sharing of exactly these elements:
 - Default header and footer are disclosed as containing "the company name and logo" in Moore (Ex. 1010), 11:4-15
 - Default background color is disclosed by Moore (Ex. 1010), 11:16-27
 - "Position and sizes of the style components are defined by the style" for the web pages is disclosed by Moore (Ex. 1010), 11:27-36

Source: DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1253-54.

During trial, a Digital River witness testified at length on how the SSS generated composite web pages with "look and feel" elements from host websites, and operated the SSS for the jury. Digital River also showed the jury several composite web pages generated by the SSS for host websites before the earliest priority date of the #572 patent, including a composite web page that incorporated several elements identified in DDR's patents or by DDR's expert at trial as "look and feel elements": the host website's logo, background color, and prominent circular icons. J.A. 8856–57 (composite web page), 7502 (host website); see also J.A. 8858–61 (composite web *1254 page incorporating host website logo, colors, fonts), 6122 (example web page from host website).

Source: DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1253-54.



Board Requested Clarification

- In the Institution Decisions the Board instructed "the parties to take positions with respect to construction of the phrase 'defining an overall appearance' that [the Board] can evaluate and consider in ascertaining whether Moore teaches or suggests the relevant limitation." Institution Decision (IPR2018-01010, Paper 8), 20.
- Patent Owner ignores the Board's request to provide any definition for "overall appearance" and distorts the Federal Circuit's guidance on the issue.

"Overall Appearance" Considered by Federal Circuit

- The Federal Circuit considered the construction of the term "look and feel," which required
 the composite web page to convey the "overall appearance" of the source page:
 - "the parties agreed to a construction of: 'A set of elements related to visual appearance and user interface conveying an overall appearance identifying a website; such elements include logos, colors, page layout, navigation systems, frames, 'mouse-over' effects, or others elements consistent through some or all of the website." DDR Holdings, LLC v. Hotels.com, LP, 773 F.3d 1245, (IPR2018-01008, Ex. 1017), 1250-1251 (emphasis added).
- The Federal Circuit found correspondence of overall appearance was shown when some "look and feel' elements identifying the host website are transferred to and displayed on the generated composite webpage." *Id.* at 1254.
- "There is no claim language requiring an 'overall match' or a specific number of 'look and feel' elements." *Id*.

"Substantially Corresponding" Overall Appearance/Look and Feel Invalid

- Claim 17 of the '572 Patent invalid:
 - 17. An e-commerce outsourcing process comprising the steps of:
 - a) storing a look and feel description associated with a first website in a data Store associated with a Second website;
 - b) including within a web page of the first website, which web page has a look and feel substantially corresponding to the stored look and feel description, a link correlating the web page with a commerce object; and
 - c) upon receiving an activation of the link from a visitor computer to which the web page has been Served, Sewing [sic] to the Visitor computer from the Second website a composite web page having a look and feel corresponding to the Stored look and feel description of the first website and having content based on the commerce object associated with the link.
- Despite the "substantially corresponding" requirement, the Federal Circuit found claim 17 anticipated noting that "[i]ndependent claim 17 requires only that the generated composite web page have a 'look and feel corresponding to the stored look and feel description' of the host website. There is no claim language requiring an 'overall match' or a specific number of 'look and feel' elements." DDR Holdings, 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1254.

'572 Claim Construction Inserted into '825 Claims

- When construed by the Federal Circuit in accordance with the stipulated construction of the term "look and feel," claim 17 of the invalidated '572 Patent recited:
- c) upon receiving an activation of the link from a visitor computer to which the web page has been served, sewing [sic] to the visitor computer from the second website a composite web page[:]
- having a [set of elements related to visual appearance and user interface substantially] corresponding to the stored [overall appearance of] the first website[, wherein the set of elements includes at least some of logos, colors, page layout, navigation systems, frames, "mouse-over" effects, or others [sic] elements consistent through some or all of the website;] and
- having content based on the commerce object associated with the link.

- Claim 1 of the '825 Patent recites substantially the same subject matter as claim 17 of the '572 Patent, which the Federal Circuit invalidated:
- upon receiving . . . an electronic request generated . . . in response to selection of a uniform resource locator (URL) within a source web page that has been served to the visitor computer when visiting a first website, . . . (b) automatically . . . serving . . . a composite web page . . . [that] includes:
- (i) information associated with the commerce object associated . . . , and
- (ii) a plurality of visually perceptible elements derived from the retrieved pre-stored data defining an overall appearance of the composite web page . . .

'572 Claim Construction Inserted into '228 Claims

- When construed by the Federal Circuit in accordance with the stipulated construction of the term "look and feel," claim 17 of the invalidated '572 Patent recited:
- c) upon receiving an activation of the link from a visitor computer to which the web page has been served, sewing [sic] to the visitor computer from the second website a composite web page[:]
- having a [set of elements related to visual appearance and user interface substantially] corresponding to the stored [overall appearance of] the first website[, wherein the set of elements includes at least some of logos, colors, page layout, navigation systems, frames, "mouse-over" effects, or others [sic] elements consistent through some or all of the website;] and
- having content based on the commerce object associated with the link.

- Claim 1 of the '228 Patent recites substantially the same subject matter as claim 17 of the '572 Patent, which the Federal Circuit invalidated:
- upon receiving . . . an electronic request generated . . . in response to selection of a uniform resource locator (URL) within a source web page that has been served to the visitor computer when visiting a first website, . . . (b) automatically . . . serving . . . a composite web page . . . [that] includes:
- (i) information associated with the commerce object associated . . . , and
- (ii) a plurality of visually perceptible elements . . . , wherein the visually perceptible elements comprise any of . . . : logos, colors, page layout, navigation systems, frames, and visually perceptible mouse-over effects, wherein the plurality of visually perceptible elements define an overall appearance of the composite page

'572 Claim Construction Inserted into '876 Claims

- When construed by the Federal Circuit in accordance with the stipulated construction of the term "look and feel," claim 17 of the invalidated '572 Patent recited:
- c) upon receiving an activation of the link from a visitor computer to which the web page has been served, sewing [sic] to the visitor computer from the second website a composite web page[:]
- having a [set of elements related to visual appearance and user interface substantially] corresponding to the stored [overall appearance of] the first website[, wherein the set of elements includes at least some of logos, colors, page layout, navigation systems, frames, "mouse-over" effects, or others [sic] elements consistent through some or all of the website;] and
- having content based on the commerce object associated with the link.

- Claim 1 of the '876 Patent recites substantially the same subject matter as claim 17 of the '572 Patent, which the Federal Circuit invalidated:
- upon receiving . . . an electronic request generated . . .
 in response to selection of a uniform resource locator
 (URL) within a source web page . . . , automatically
 serving . . .
- ... commerce object information ... displayed ... on a composite web page visually corresponding to the source web page;
- wherein the visual correspondence relates to <u>overall</u> <u>appearance</u> of the composite web page as compared to the source web page, . . .

PO's Incorrect Statements Made to Examiner to Obtain Allowance

- Patent Owner told Examiner "overall appearance" = "overall match"
 - "[T]he phrase 'overall match' was used in the trial in Texas as a shorthand reference to general correspondence of overall appearance." Response filed Dec. 24, 2014 at 18 (Ex. 2005), 62.
 - "Patent Owner also told the examiner of the Federal Circuit's invalidation of certain claims of the parent '572 patent and that the same reasoning was 'emphatically not equally applicable to the pending claims,' which 'expressly requires an overall appearance correspondence.'" PO Resp. (IPR2018-01008, Paper 21), 5.
 - "Patent Owner explained . . . that the decision turned on the absence of a limitation in the grandparent '572 patent requiring corresponding overall appearance. In allowing the '228 patent, then, the examiner accepted Patent Owner's explanation that the Digital River art merely "carried over isolated elements" but contained no page pair with "a substantially similar overall appearance." PO Sur-Reply (IPR2018-01008, Paper 25), 4-5.
 - "[T]he examiner granted these ['825, '228, '876] patents with claims that . . . 'expressly recited' the 'overall match' requirement." PO Prelim. Resp. (IPR2018-01008, Paper 11), 24-25.
- Federal Circuit explicitly distinguished "overall appearance" from "overall match." *DDR Holdings*, 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1254 (noting that claims requiring "overall appearance" did not require an "overall match").

PO's Incorrect Statements Made in IPR Proceedings

- "The Federal Circuit in Hotels did not reverse the district court finding that Digital River failed to disclose corresponding overall appearance. The jury, the district court, and the examiner all concluded that the Digital River page pairs did not show corresponding overall appearance, and the examiner rightly understood that the Federal Circuit did not disagree." PO Sur-Reply (IPR2018-01008, Paper 25), 5-6.
- "Petitioner's thesis is wrong because it mistakenly assumes that the Federal Circuit decision overturned the jury's judgment, upheld by the district court, that the Digital River page pairs fail to show "correspondence of overall appearance" based only on the presence of a few common 'look and feel' elements." Id. at 6.
- "The Federal Circuit's decision in Hotels thus did not disturb the jury and district court's factual findings, which remain persuasive evidence that the few common elements on Digital River page pairs did not produce overall correspondence." *Id.* at 3-4.
- "The Federal Circuit partial reversal did not disturb the jury findings or court affirmance of what constituted a correspondence in visual appearance; it merely held that the grandparent claims did not require such correspondence." PO Resp. (IPR2018-01008, Paper 21), 11 n.6.

Federal Circuit Reversed Jury and District Court

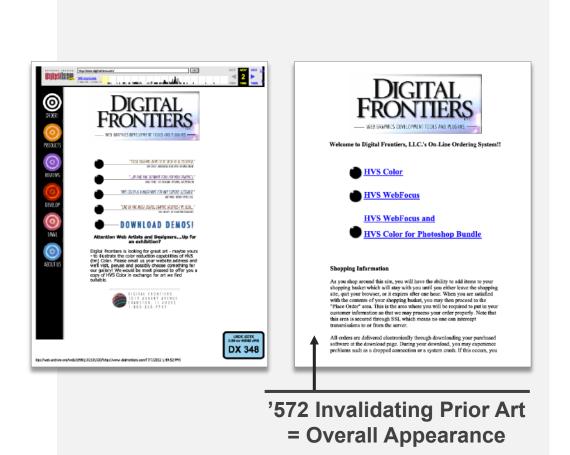
- The Federal Circuit expressly reversed the jury and district court by ruling that "the record allows only one reasonable finding: clear and convincing evidence establishes that Digital River's prior art SSS anticipates the asserted claims of the '572 patent. The record lacks substantial evidence to support the jury's finding that the asserted claims of the '572 patent are not anticipated. Therefore, the district court erred by denying the defendants' motion for JMOL of invalidity." DDR Holdings, 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1253.
- Thus, the Federal Circuit invalidated claims requiring the source and composite web pages to have corresponding look and feel, i.e., corresponding overall appearance. *Id*.

"Overall Match" NOT Required by the Challenged Claims

- "The Response (at 10-11) cites evidence from the district court and from the prosecution histories demonstrating that 'page pairs' that share only the name and logo of a host 'fall short[]' of 'conveying an overall match of appearance.' . . . Accordingly, the Board should find that claim terms requiring 'visual correspondence' of 'overall appearance' cannot be met by a host page and composite page that just share a host's name or name plus trademark or logo." PO Sur-Reply (IPR2018-01008, Paper 25), 7-8.
 - Patent Owner's argument is wrong, the Federal Circuit found correspondence of overall appearance was shown when some "look and feel' elements identifying the host website are transferred to and displayed on the generated composite webpage." DDR Holdings, 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1254.
- Patent Owner concedes "the claim limitations [do not] require that the pages must match exactly," and that "there is no basis for such a position in the specification, file history, or previous determinations of overall appearance." PO Resp. (IPR2018-01008, Paper 21), 23.
 - Like the invalidated claims of the '572 Patent (which also required correspondence of "overall appearance"), the challenged claims contain "no claim language requiring an 'overall match'." *Id*.
 - Like the invalidated claims of the '572 Patent, the challenged claims do not require "a specific number of 'look and feel' elements." *Id*.

"Look and Feel" ('572) = "Overall Appearance" ('825, '228, '876)

- "[C]ommonality of overall appearance cannot be premised merely on the presence of a few common 'look and feel' elements, especially non-distinctive ones." PO Sur-Reply (IPR2018-01008, Paper 25), 13.
 - "There is nothing, however, in the . . . claim language, or the specification that requires the generated composite web page to match the host website or to incorporate a specific number, proportion, or selection of the identified 'look and feel' elements on a host website." DDR Holdings, 773 F.3d 1245 (Ex. 1017), 1254.
 - "There is no claim language requiring an 'overall match' or a specific number of 'look and feel' elements." *Id.*



Moore IPR -Tool Creates Pages with Common Overall Appearance

HS 6 330 575 B1

service provider. First, overhead is minimized. Much of the overhead and cost of hosting a commerce Web site comes from the bandwidth requirement. Every time that a Web site gets a "hit," information must be transmitted. If the transstorefronts, then it does not have to process any of the hits associated with all of the shopping that occurs on the Web storefronts. The bandwidth usage will be even lower because, presumably, many of the merchants will choose to do their own credit card verification, thereby eliminating 1 these transmissions as well. Further, in systems utilizing a Store Builder Server, the Transaction Server does not need to maintain the shopping buskets, nor process the hits associated with each of the buys.

Second, the amount of memory required is minimized, The Transaction Server does not need to host any of the Web storefronts, nor does it need to maintain any shopping baskets nor any information on the products being offered for sale by the merchants, nor does it need to keep any data. regarding the Store Servers. In the preferred embediment, : the primary merchant-related data that the Transaction Server needs to store is a list of all of the registered merchants and their contact information. Clearly, however, Transaction Servers will want to keep track of sales so that they can bill the merchant's for their services, and may want 25 to store additional information and statistics about the mer-

Third, the barrier to entering into electronic commerce is lowered for the merchants. This benefits the transaction service provider because it opens up a whole new group of 30 apple) from a local system, if the developer wishes i potential customers. These potential customers are the merchants who could not afford to do non-distributed Web

Fourth, the technique is also scalable. The transaction service provider can serve a much larger number of mer- 35 other hand, will allow the developer to have complete seees chants with a given Transaction Server (due to the advantages above). If the number of sales grows and a particular Transaction Server reaches its threshold in memory or bandwidth, then the transaction service provider can simply add another Transaction Server and have the Store Builder 4 Server direct some of the traffic to it. The Store Builder Server is also scalable, and if an additional server is needed. due to volume it can be added. In that case, the provider can use the new server for future merchants or even direct current merchants to create any future price URLs (for new 45 products or changes for existing products) using the new

It is useful to broaden some of the concepts introduced or discussed above in order to see how they fit into the broader concept of virtual commerce. The merchant's web site, that is the actual web pages, can be considered to be a virtual store. The virtual store could span across one or more physical servers or computers, and these servers can collectively be referred to as the store server system. Analogously, 55 the source of this invention. Each of the four siens will be the transaction service provider's web site can be considered to be a virtual cashier, spanning across a cashier server system commised of one or more servers. The store builder server web site could be considered to be yet a third virtual entity, or it can more simply be considered to be either part of the virtual store or the virtual cashier.

Numerous criteria could be developed to determine when these virtual entities could be considered to be distributed. Some such criteria include: different servers or commuters instructions associated with each web site, with each processor potentially accessing the same memory, or each web
Development Tool to preselect the image libraries and page

site merely responding to a different network address, pos sibly residing in the same memory on a common server, running on the same processor, and accessing the network over the same hardware such as a communications card. action service provider chooses not to host the Web 5 Each of these ideas is meant to be encompassed when referring to distributed systems.

These virtual stores and cashiers are presently displayed over the World Wide Web and the Internet, but future networks will surely arise for which virtual commerce will be applicable. Further, the present means of accessing and displaying virtual entities will change. Presently, web browsers running on personal computers processing HTMI. pages with HTTP requests and using URLs to link between pages is the preferred mechanism or system for customers to access the content. Software and computer technology will quickly replace many of these standards. Additionally, other technologies involving optics, magnetics, and other sciences could also produce viable methods of accessing and displaying virtual entities. Each of these potential advances could be used to enable a distributed commerce system over a network, and the present invention could be utilized to design the virtual storefronts and other virtual entities.

Detailed Description of the Development Tool a. Launching the Development Tool.

As explained earlier, in the preferred embediment the Development Tool is downloaded from a Store Builder Server as either an applet or an application. The applet must be run on top of a Web browser and runs the standard Java security model procedure. For example, when using the incorporate an image which resides on the same local system, then he must uplead the image to a servlet on the Store Builder Server and then devaload the image into the applet on the local system. The application version, on the to the local machine. For this and other reasons, the appl. onton will also run faster than the applet-

The applet also has advantages, and these stem from the fact that the applet sits on an HTML page and is downloaded as needed by the customer's Web browser. The developer will, therefore, always have the latest version and no local disk space will be required.

b. Bailding a Page

The Development Tool is object-oriented and template driven, and it enables its customer, which is the merchant, t design a web site in only a few minutes and does not require special Internet knowledge from the mereliant. The Development Tool breaks the design process flown into four steps. The first is to select a Web site category. The second collect optional page header and feater information. The flaird is to choose the defaults for the background color or image and for the page style. The fourth is to fill in the content of each page. These steps and the details of execut ing them could certainly be modified without deviating from further explained below with the aim of describing how the Development Tool operates and how the merchant designs

The first step is to select a category. The eategory is selected from a list of ten industries such as automotive dining, and education. Referring to FIG. 6, there is shown a screen 600 containing a list of possible industries to choose from in the Development Tool. Alternate embodiments could employ different industries and a different number of hosting the web sites; different processors executing the as choices. The list 600 also ithestrates the simplicity of the merchant interface. The selected eategory is used by th

US 6,330,575 B1

etyle libraries that will be used in the fourth step. The Herriconnect Tool thus simplifies for the excellent the processes of finding appropriate clip ort and page styles.

The second step is to escate the definit header and frotes. The page header and froter are typically used for the company name and logs. An email address and a link URL are also commonly included. As with more of the features of the Development Tool, the field size may be adjusted and images may be loaded. In this case, the height of the bender, for example, may need to be increased in order to accommodute a particular communy loco. Referring to FIG. 7, thereis shown a sesson 700 in which the merchant is prompted to arter the information for the header and the forter. The serion 700 further illustrates the simplicity of the marchant

The third stop is to relect the default background, which may be a color or an image, and page style. The Development Tool simplifies the process of choosing by effering grids of selections. The color grid, or pollet, contains 16 different colors. This color pullet can be used or the meachant can define his own. Similarly, a grid of clip art images is available for the merchant to choose from for background impacs. These default conditions for each page constitute a template, and leggin to illustrate the template-driven nature of the Development Tool. The default background may be separately charged by the merchant for any particular page.

Page styles allocate certain portions of each race to text. imposs, multimodia, etc. The style thus cooxides a template. for all of the different content-orlated objects ("style components") that will appear on a page. Although the monition and above of the stale common rate on defined by the style, they can be changed by the merchant for any page. Beforing to FEG. 8, there is shown a senson 800 which promots the merchant to select a background and a style for he page. Page styles are further elaborated in FIG. 9, and FIG. 10 shows one style or template in Isolation.

The fourth step is to fill in the content for each of the style components. As shown, for example, in FIG. 10, each of the style components must be filled in. To do this, the merchant elides on the style assumement and the Development Tool presents a "dialog" box which steps the marchant through to chalacs necessary to fill in the style component. FIGS. II-I3 show dialog boxes for image, text, and multimedia style compenents, respectively. For images, the merchant is presented with a selection, but may use other images as well. It is common for a merchant to seen been and impact that the merchant wants to use on his Web site. Any style component can also have a URL attached to it, and the dialog box allows the marshant to select this option.

Each page created by the merchant can, as mentioned radies, be modified. Style components can be added, deleted, moved, resized, etc. Another feature of the Develappropriate Tool is that it presents the page just as a Weboustomer will see it. This feature, called WYSIWYG for an "what you see is what you get" allows the merchant to see, without multishing and browsing, what the published more will look like when it is published. Additionally, the Development Tool also provides a previewing option which uphads aff of the pages and allows the merchant to view the a Development Tools, for merchants desiring to create Web entire Web site with a Web hoowser.

When the mores are all created, the Dovelsomert Tool allows the mendout to upload or publish the Web pages to a site specified by the merchant. The merchant must, of course, possible the logic III and password. F12. 14 classes as variety of host equipment. Moreover, this functionality may a serion which prompts the merchant for the publishing

e. Interfering with a Distributed Electronic Commerce

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embediment, on the Store Builder Server and can be attached to any style component. The Web customer would then select, for example by elicking with a mouse, the style component in order to buy the product which it describes. Alternate embedianents could use the price URLs to Imstraight to the Transaction Server, or to another site. The price URL has attached an encrypted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store Builder Server, but other encryption means are possible. The elegature assures that the price URL was created by the Store Bullifer Server, and therefore guarantees that the price and the other data associated with the URL were originally created and sanctioned by the merchant, FIG. 15 shows the dialog page for the price URL.

The Store Builder Server is able to decrypt the price URL data and occurred it into an HTML page (a Buy Page). A typical Buy Page is sheren in FIG. 16, and its ourcess; and operation has been explained earlier. Another have servlet on the Store Builder Server preserves the state between HTTPd requests in the shopping basket. The shopping basket keeps track of the data portion of the price URL for all items that a shopper wants to buy from the Web pages.

d. Adaptability of the Development Tool's Interfaces

The Development Tool is also adaptable to different levels of merchant requirements und/or sophistication. It offers 5 different levels of functionality depending on what the merchant needs or dusines. These are called, from the simplest to the most rebust: Web Card, Basic, Standard, Commerce, and Advanced. This feature is quite valuable in that a single interface connot meet every merchant's needs The simplest mode should appeal both to merchanis that require only a small Web site and to merchants that require a larger Web site but are not proficient with the Web and with computers. A more advanced mode, however, can save the ereficient merchant time, as well as provide more function.

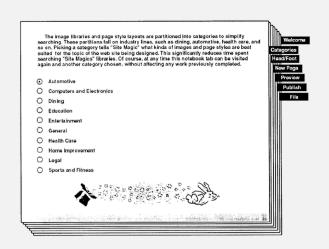
The look and feel of the Development Tool can also be adapted. The Tool incorporates a particular look and feel which includes a large number of items that affect the presentation of information to the tool user. Examples include the use of feons, radio buttons, using tabs to show other features available, etc. As mentioned in the introduction, a merchant may not like the standard tool look and feel or may simply want a different one for a variety of reasons. The Development Tool is an object-priented application, and its leak and feel is provided by a Java class. This class can be removed and another used in its place in order to provide a different look and feel.

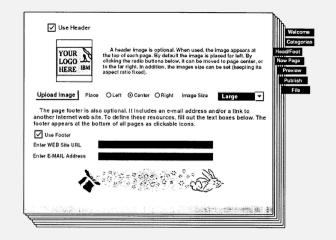
7. General Implementation

pages for electronic commerce systems, in accordance with the present invention, can be, at least partially, implemented by hardware, software, or a combination of both. This may be done for example, by a Java application running on a be embodied in computer readable media such as 3.5 inch diskettes to be used in programming an information-

Source: Moore (Ex. 1010), 10:43 – 12:32

Moore IPR -Tool Creates Pages with Common Overall Appearance





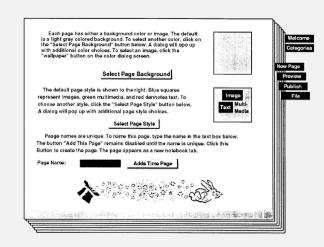


FIG. 6

FIG. 7

FIG. 8

Development Tool breaks the design process down into four steps. The first is to select a Web site category. The second is to collect optional page header and footer information. The third is to choose the defaults for the background color or image and for the page style. The fourth is to fill in the content of each page. These steps and the details of execut-

Source: Moore (Ex. 1010), 10:48-53, FIGS. 6-8.

Moore IPR -Tool Creates Pages with Common Overall Appearance

HS 6 330 575 B1

service provider. First, overhead is minimized. Much of the overhead and cost of hosting a commerce Web site comes from the bandwidth requirement. Every time that a Web site gets a "hit," information must be transmitted. If the transstorefronts, then it does not have to process any of the hits associated with all of the shopping that occurs on the Web storefronts. The bandwidth usage will be even lower because, presumably, many of the merchants will choose to do their own credit card verification, thereby eliminating 10 these transmissions as well. Further, in systems utilizing a Store Builder Server, the Transaction Server does not need to maintain the shopping buskets, nor process the hits associated with each of the buys.

Second, the amount of memory required is minimized, a The Transaction Server does not need to host any of the Web storefronts, nor does it need to maintain any shopping baskets nor any information on the products being offered for sale by the merchants, nor does it need to keep any data regarding the Store Servers. In the preferred embediment, : the primary merchant-related data that the Transaction Server needs to store is a list of all of the registered merchants and their contact information. Clearly, however, Transaction Servers will want to keep track of sales so that they can bill the merchant's for their services, and may want 25 to store additional information and statistics about the mer-

lowered for the merchants. This benefits the transaction service provider because it opens up a whole new group of a applet from a local system, if the developer wishes to potential customers. These potential customers are the merincorporate an image which resides on the same local system. chants who could not afford to do non-distributed Web

Fourth, the technique is also scalable. The transaction service provider can serve a much larger number of mer- 35 other hand, will allow the developer to have complete access chants with a given Transaction Server (due to the advanto the local machine. For this and other reasons, the applitages above). If the number of sales grows and a particular Transaction Server reaches its threshold in memory or bandwidth, then the transaction service provider can simply Server direct some of the traffic to it. The Store Builder Server is also scalable, and if an additional server is needed due to volume it can be added. In that case, the provider can use the new server for future merchants or even direct current merchants to create any future price URLs (for new as driven, and it enables its customer, which is the merchant, t products or changes for existing products) using the new

It is useful to broaden some of the concepts introduced or discussed above in order to see how they fit into the broader concept of virtual commerce. The merchant's web site, that is the actual web pages, can be considered to be a virtual store. The virtual store could span across one or more physical servers or computers, and these servers can collecthe transaction service provider's web site can be considered to be a virtual cashier, spanning across a cashier server system commised of one or more servers. The store builder server web site could be considered to be yet a third virtual entity, or it can more simply be considered to be either part of the virtual store or the virtual cashier.

Numerous criteria could be developed to determine when these virtual entities could be considered to be distributed. Some such criteria include: different servers or commuters instructions associated with each web site, with each processor potentially accessing the same memory, or each web Bevelopment Tsel to pression the image llimatics and page

site merely responding to a different network address, possibly residing in the same memory on a common server, running on the same processor, and accessing the network over the same hardware such as a communications card. action service provider chooses not to host the Web 5 Each of these ideas is meant to be encompassed when referring to distributed systems.

These virtual stores and cashiers are presently displayed over the World Wide Web and the Internet, but future networks will surely arise for which virtual commerce will be applicable. Further, the present means of accessing and displaying virtual entities will change. Presently, web browsers running on personal computers processing HTMI. pages with HTTP requests and using URLs to link between pages is the preferred mechanism or system for customers to access the content. Software and computer technology will quickly replace many of these standards. Additionally, other technologies involving optics, magnetics, and other sciences could also produce viable methods of accessing and displaying virtual entities. Each of these potential advances could be used to enable a distributed commerce system over a network, and the present invention could be utilized to design the virtual storefronts and other virtual entities 6. Detailed Description of the Development Tool

a. Launching the Development Tool

As explained earlier, in the preferred embodiment the Development Tool is downloaded from a Store Builder Server as either an appliet or an application. The applet must Third, the barrier to entering into electronic commerce is be run on top of a Web browser and runs the standard Java security model procedure. For example, when using the incorporate an image which resides on the same local system, then he must upload the image to a servlet on the Store Builder Server and then download the image into the applet on the local system. The application version, on the cation will also run faster than the applet.

The applet also has advantages, and these stem from the fact that the applet sits on an HTML page and is downloaded add another Transaction Server and have the Store Builder 40 as needed by the customer's Web browser. The developer will, therefore, always have the latest version and no local disk space will be required.

b. Building a Page

The Development Tool is object-micrated and template design a web site in only a few minutes and does not require special Internet knowledge from the mereliant. The Development Tool breaks the design process flown into four steps. The first is to select a Web site entegory. The second collect optional page header and feeter information The flaired is to choose the defaults for the background colo or image and for the page style. The fourth is to fill in the content of each page. These steps and the details of execut ing them could certainly be modified without deviating from tively be referred to as the store server system. Analogously, 55 the source of this invention. Each of the four siens will be further explained below with the aim of describing how the Development Tool operates and how the merchant designs

The first step is to select a eategory. The eategory is selected from a list of ten industries such as automotive dining, and education. Referring to FIG. 6, there is shown a serven 600 containing a list of possible industries to choose from in the Development Tool. Alternate embodiments could employ different industries and a different number of hosting the web sites; different processors executing the as choices. The list 600 also ithestrates the simplicity of the merchant interface. The selected eategory is used by the

US 6,330,575 B1

style libraries that will be used in the fourth step. The Hereleaguest Tool thus simplifies for the preschool the processes of finding appropriate clip ort and page styles.

The second step is to escate the default header and faotes. The page header and factor are typically used for the company name and logs. An email address and a link URL are also commonly included. As with more of the features of the Development Tool, the field size may be adjusted and images may be loaded. In this case, the height of the bender, modute a particular communy loco. Referring to FIG. 7, thereis shown a sesson 700 in which the merciant is prompted to order the information for the header and the forter. The serion 700 further illustrates the simplicity of the marchant

The third step is to select the default background, which may be a color or an image, and page style. The Development Tool simplifies the process of chrosing by offering grids of selections. The color grid, or pollet, contains 16 different colors. This color pullet can be used or the meachant can define his own. Similarly, a grid of clip art images is available for the merchant to choose from for background impacs. These default conditions for each page constitute a template, and leggin to illustrate the template-driven nature of the Development Tool. The default background may be separately charged by the merchant for any particular page.

Page styles allocate certain portions of each race to text. imposs, multimodia, etc. The style thus cooxides a template. for all of the different content-related objects ("style components") that will appear on a page. Although the monition and above of the stale common rate on defined by the style, they can be charged by the morehant for any page. Beforing to FEG. 8, there is shown a senson 800 which promots the merchant to select a background and a style for he page. Page styles are further elaborated in FIG. 9, and FIG. 10 shows one style or template in Isolation.

The fourth step is to fill in the content for each of the style components. As shown, for example, in FIG. 10, each of the style components must be filled in. To do this, the merchant elides on the style assumement and the Development Tool presents a "dialog" box which steps the marchant through to chalacs necessary to fill in the style component. FIGS. II-I3 show dialog boxes for image, text, and multimedia style compenents, respectively. For images, the merchant is presented with a selection, but may use other images as well. It is common for a merchant to seen been and impact that the merchant wants to use on his Web site. Any style component can also have a URL attached to it, and the dialog box allows the mandout to select this option.

Each page created by the morehant can, as mentioned radies, be modified. Style components can be added, deleted, moved, resized, etc. Another feature of the Develappropriate Tool is that it presents the page just as a Web-"what you see is what you get" allows the merchant to see, without publishing and browsing, what the published page will look like when it is published. Additionally, the Development Tool also provides a proviewing option which reducade all of the pages and allows the menchant to view the antira Wab site with a Web browser.

When the pages are all created, the Development Tool allows the merchant to upload or publish the Web pages to a site specified by the merchant. The merchant must, of

c. Interfacing with a Distributed Electronic Commerce

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL" A price URL is a link to the Java servlets residing, in the preferred embodiment, on the Store Builder Server and can be attached to any style component. The Web customer would then select, for example by clicking with a mouse, the style for example, may used to be increased in order to accoun-Alternate embediments could use the price URLs to link straight to the Transaction Server, or to another site. The price URL has attached an encrypted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store Bailder Server, but other encryption means are possible. The signature assures that the price URL was created by the Store Builder Server, and therefore guarantees that the price and the other data associated with the URL were originally created and sanctioned by the merchant. FIG. 15 shows the dialog page for the price URL. The Store Builder Server is able to decrypt the price URI

data and convert it inte an HTML page (a Buy Page). A typical Buy Page is shown in FIG. 16, and its purpose and operation has been explained earlier. Another Java servlet on the Store Builder Server preserves the state between HTTPd requests in the shopping basket. The shopping basket keeps track of the data portion of the price URL for all items that a shopper wants to buy from the Web pages

d. Adaptability of the Development Tool's Interfaces

The Development Tool is also adaptable to different levels of merchant requirements and/or sophistication. It offers 5 different levels of functionality depending on what the merchant needs or desires. These are called, from the simplest to the most robust: Web Card, Basic, Standard, Commerce, and Advanced. This feature is quite valuable in m that a single interface cannot meet every merchant's needs. The simplest mode should appeal both to merchants that require only a small Web site and to merchants that require a larger Web site but are not proficient with the Web and with computers. A more advanced mode, however, can save the proficient merchant time, as well as provide more function

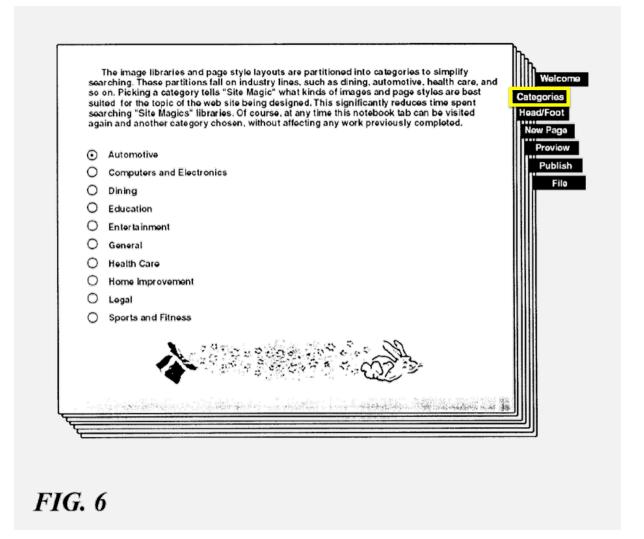
The look and feel of the Development Tool can also be adapted. The Tool incorporates a particular look and feel which includes a large number of items that affect the presentation of information to the tool user. Examples include the use of icons, radio buttons, using tabs to show other features available, etc. As mentioned in the introduction, a merchant may not like the standard tool look and feel or may simply want a different one for a variety of sustainer will say it. This feature, called WYSIWYG for 55 reasons. The Development Tool is an object-oriented application, and its look and feel is provided by a Java class. This class can be removed and another used in its place in order to provide a different look and feel. 7. General Implementation

Development Tools, for merchants desiring to create Web pages for electronic commerce systems, in accordance with the present invention, can be, at least partially, implemented by hardware, software, or a combination of both. This may be done for example, by a Java application running on a

course, provide the login ID and password. FIG. 14 shows as variety of host equipment. Moreover, this functionality may a screen which prompts the mechant for the publishing be embodied in computer readable media such as 3.5 inch

Moore IPRs – Tool Uses Category to Assist

The first step is to select a category. The category is selected from a list of ten industries such as automotive, dining, and education. Referring to FIG. 6, there is shown a screen 600 containing a list of possible industries to choose from in the Development Tool. Alternate embodiments could employ different industries and a different number of choices. The list 600 also illustrates the simplicity of the merchant interface. The selected category is used by the Development Tool to preselect the image libraries and page style libraries that will be used in the fourth step. The Development Tool thus simplifies for the merchant the processes of finding appropriate clip art and page styles.

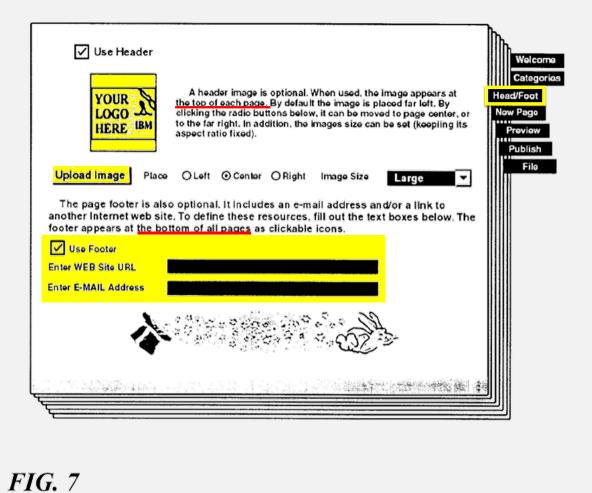


Source: Moore (Ex. 1010), 10:59-11:3, FIG. 6.

Moore IPRs – Tool Defines Page Defaults

Having a common header and footer on "all pages" creates a common overall appearance.

The second step is to create the default header and footer. The page header and footer are typically used for the company name and logo. An email address and a link URL are also commonly included. As with many of the features of the Development Tool, the field size may be adjusted and images may be loaded. In this case, the height of the header, for example, may need to be increased in order to accommodate a particular company logo. Referring to FIG. 7, there is shown a screen 700 in which the merchant is prompted to enter the information for the header and the footer. The screen 700 further illustrates the simplicity of the merchant interface.



Source: Moore (Ex. 1010), 11:4-15, FIG. 7.

Moore IPRs – Tool Defines Page Defaults

Having a common background color and page style creates a common overall appearance.

The third step is to select the default background, which may be a color or an image, and page style. The Development Tool simplifies the process of choosing by offering grids of selections. The color grid, or pallet, contains 16 different colors. This color pallet can be used or the merchant can define his own. Similarly, a grid of clip art images is available for the merchant to choose from for background images. These default conditions for each page constitute a template, and begin to illustrate the template-driven nature of the Development Tool. The default background may be separately changed by the merchant for any particular page.

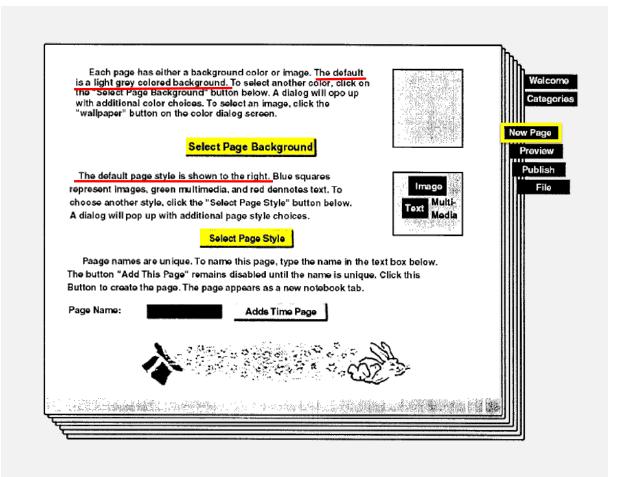


FIG. 8

Source: Moore (Ex. 1010), 10:48-53, 11:16-26, FIGS. 8.

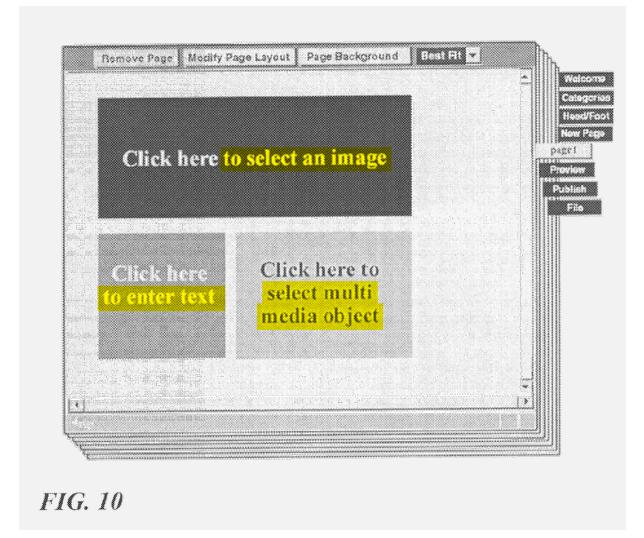
Moore IPRs –Tool Allows *Optional* Page Customization

The fourth step is to fill in the content for each of the style components. As shown, for example, in FIG. 10, each of the style components must be filled in. To do this, the merchant clicks on the style component and the Development Tool presents a "dialog" box which steps the merchant through the choices necessary to fill in the style component. FIGS. 11–13 show dialog boxes for image, text, and multimedia style components, respectively. For images, the merchant is presented with a selection, but may use other images as well. It is common for a merchant to scan logos and images that the merchant wants to use on his Web site. Any style component can also have a URL attached to it, and the dialog box allows the merchant to select this option.

Source: Moore (Ex. 1010), 11:37-49

Page styles allocate certain portions of each page to text, images, multimedia, etc. The style thus provides a template for all of the different content-related objects ("style components") that will appear on a page. Although the position and sizes of the style components are defined by the style, they can be changed by the merchant for any page. Referring to FIG. 8, there is shown a screen 800 which prompts the merchant to select a background and a style for the page. Page styles are further elaborated in FIG. 9, and FIG. 10 shows one style or template in isolation.

Source: Moore (Ex. 1010), 11:28-37



Moore IPRs – Changing Pages From Defaults

- The Development Tool creates the Storefront pages with defaults settings.
- The merchant is free to change the style components to individualize the pages.

Each page created by the merchant can, as mentioned earlier, be modified. Style components can be added, deleted, moved, resized, etc. Another feature of the Development Tool is that it presents the page just as a Web customer will see it. This feature, called WYSIWYG for "what you see is what you get" allows the merchant to see, without publishing and browsing, what the published page will look like when it is published. Additionally, the Development Tool also provides a previewing option which uploads all of the pages and allows the merchant to view the entire Web site with a Web browser.

Source: Moore (Ex. 1010), 11:50-61.

Moore IPRs – Single Tool Makes All Pages

US 6.330.575 B1

service provider. First, overhead is minimized. Much of the overhead and cost of hosting a commerce Web site comes from the bandwidth requirement. Every time that a Web site gets a "hit," information must be transmitted. If the trans storefronts, then it does not have to process any of the hits associated with all of the shopping that occurs on the Web storefronts. The bandwidth usage will be even lower because, presumably, many of the merchants will choose to do their own credit card verification, thereby eliminating those transmissions as well. Further, in systems utilizing a Store Builder Server, the Transaction Server does not need to maintain the shopping baskets, nor process the hits associated with each of the buys.

Second, the amount of memory required is minimized. The Transaction Server does not need to host any of the Web storefronts, nor does it need to maintain any shopping baskets nor any information on the products being offered for sale by the merchants, nor does it need to keep any data regarding the Store Servers. In the preferred embodiment, the primary merchant-related data that the Transaction Server needs to store is a list of all of the registered merchants and their contact information. Clearly, however, Transaction Servers will want to keep track of sales so that they can bill the merchant's for their services, and may want to store additional information and statistics about the mer-

Third, the barrier to entering into electronic commerce is lowered for the merchants. This benefits the transaction potential customers. These potential customers are the merchants who could not afford to do non-distributed Web

Fourth, the technique is also scalable. The transaction service provider can serve a much larger number of mer- 30 chants with a given Transaction Server (due to the advantages above). If the number of sales grows and a particular Transaction Server reaches its threshold in memory or bandwidth, then the transaction service provider can simply Server direct some of the traffic to it. The Store Builder Server is also scalable, and if an additional server is needed. due to volume it can be added. In that case, the provider can use the new server for future merchants or even direct products or changes for existing products) using the new

It is useful to broaden some of the concepts introduced or discussed above in order to see how they fit into the broader concept of virtual commerce. The merchant's web site, that is the actual web pages, can be considered to be a virtual store. The virtual store could span across one or more physical servers or computers, and these servers can collectively be referred to as the store server system. Analogously, the transaction service provider's web site can be considered to be a virtual cashier, spanning across a cashier server system comprised of one or more servers. The store builder server web site could be considered to be yet a third virtual entity, or it can more simply be considered to be either part of the virtual store or the virtual cashier.

Numerous criteria could be developed to determine when these virtual entities could be considered to be distributed. Some such criteria include: different servers or computers hosting the web sites; different processors executing the 65 choices. The list 600 also illustrates the simplicity of the instructions associated with each web site, with each processor potentially accessing the same memory; or each web

site merely responding to a different network address, pos sibly residing in the same memory on a common server running on the same processor, and accessing the network over the same hardware such as a communications card action service provider chooses not to host the Web 5 Each of these ideas is meant to be encompassed when referring to distributed systems.

These virtual stores and cashiers are presently displayed over the World Wide Web and the Internet, but future networks will surely arise for which virtual commerce will be applicable. Further, the present means of accessing and displaying virtual entities will change. Presently, web browsers running on personal computers processing HTML pages with HTTP requests and using URLs to link between pages is the preferred mechanism or system for customers to access the content. Software and computer technology will quickly replace many of these standards. Additionally, other technologies involving optics, magnetics, and other sciences could also produce viable methods of accessing and displaying virtual entities. Each of these potential advances could be used to enable a distributed commerce system over a network, and the present invention could be utilized to design the virtual storefronts and other virtual entitie 6. Detailed Description of the Development Tool

a. Launching the Development Tool

As explained earlier, in the preferred embodiment the Development Tool is downloaded from a Store Builder Server as either an appliet or an application. The applet must be run on top of a Web browser and runs the standard Java security model procedure. For example, when using the service provider because it opens up a whole new group of 30 applet from a local system, if the developer wishes to incorporate an image which resides on the same local system, then he must upload the image to a servlet on the Store Builder Server and then download the image into the applet on the local system. The application version, on the other hand, will allow the developer to have complete access to the local machine. For this and other reasons, the appli cation will also run faster than the applet.

The applet also has advantages, and these stem from the fact that the applet sits on an HTML page and is downloaded add another Transaction Server and have the Store Builder 40 as needed by the customer's Web browser. The developer will, therefore, always have the latest version and no local disk space will be required.

b. Building a Page

The Development Tool is object-oriented and template current merchants to create any future price URLs (for new 45 driven, and it enables its customer, which is the merchant, to design a web site in only a few minutes and does not require any special Internet knowledge from the merchant. The Development Tool breaks the design process down into four steps. The first is to select a Web site category. The second is to collect optional page header and footer information. The third is to choose the defaults for the background color or image and for the page style. The fourth is to fill in the content of each page. These steps and the details of executing them could certainly be modified without deviating from the scope of this invention. Each of the four steps will be further explained below with the aim of describing how the Development Tool operates and how the merchant designs a

The first step is to select a category. The category is selected from a list of ten industries such as automodining, and education, Referring to FIG. 6, there is shown a screen 600 containing a list of possible industries to choose from in the Development Tool. Alternate embodiments could employ different industries and a different number of merchant interface. The selected category is used by the Development Tool to preselect the image libraries and page

US 6,330,575 B1

style libraries that will be used in the fourth step. The Development Tool thus simplifies for the prevelopt the processes of finding appropriate clip art and page styles.

The second step is to create the default header and footer. The page header and footer are typically used for the company name and logo. An email address and a link URL are also commonly included. As with many of the features of the Development Tool, the field size may be adjusted and images may be loaded. In this case, the height of the header, for example, may need to be increased in order to accommedate a particular company logo. Referring to FIG. 7, there is shown a sersen 700 in which the merchant is prompted to enter the information for the header and the footer. The screen 700 further illustrates the simplicity of the merchant

The third sten is to select the default background, which may be a color or an image, and page style. The Development Tool simplifies the process of choosing by offering grids of selections. The color grid, or pallet, contains 16 different colors. This color pallet can be used or the merchant can define his own. Similarly, a grid of clip art images is available for the merchant to choose from for background images. These default conditions for each page constitute a template, and begin to illustrate the template-driven nature of the Development Tool. The default background may be separately changed by the merchant for any particular page.

Page styles allocate certain portions of each page to text, images, multimedia, etc. The style thus provides a template for all of the different content-related objects ("style components") that will appear on a page. Although the position and sizes of the style components are defined by the style, they can be changed by the merchant for any page. Referring to FIG. 8, there is shown a screen 800 which prompts the merchant to select a background and a style for the page. Page styles are further elaborated in FIG. 9, and FIG. 10 shows one style or template in isolation.

The fourth step is to fill in the content for each of the style components. As shown, for example, in FIG. 10, each of the style components must be filled in. To do this, the merchant clicks on the style component and the Development Tool presents a "dialog" box which steps the merchant through choices necessary to fill in the style component. FIGS. 11-13 show dialog boxes for image, text, and multimedia style components, respectively. For images, the merchant is presented with a selection, but may use other images as well. It is common for a merchant to scan locos and images that the merchant wants to use on his Web site. Any style component can also have a URL attached to it, and the dialog box allows the merchant to select this option.

Each page created by the merchant can, as mentioned earlier, be modified. Style components can be added, deleted, moved, resized, etc. Another feature of the Development Tool is that it presents the page just as a Web customer will see it. This feature, called WYSIWYG for sa "what you see is what you get" allows the merchant to see, without publishing and browsing, what the published page will look like when it is published. Additionally, the Development Tool also provides a previewing option which uploads all of the pages and allows the merchant to view the entire Web site with a Web browser.

When the passes are all created, the Development Tool allows the merchant to upload or publish the Web pages to a site specified by the merchant. The merchant must, of course, provide the login ID and password. FIG. 14 shows as variety of host equipment. Moreover, this functionality may a screen which prompts the mechant for the publishing be embodied in computer readable media such as 3.5 inch

e. Interlaying with a Distributed Rectronic Commerce

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embediment, on the Store Builder Server and can be attached to any style component. The Web customer would then select, for example by clicking with a mouse, the style component in order to buy the product which it describes. Alternate embedianents could use the price URLs to Imstraight to the Transaction Server, or to another site. The price URL has attached an energoted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store Builder Server, but other encryption means are possible. The elegature assures that the price URL was created by the Store Bullder Server, and therefore guarantees that the price and the other data associated with the URL were originally consted and spectioned by the merchant. PIG: 15 shows the dialog page for the price URL.

The Store Builder Server is able to decrypt the price URL data and convert it into an HTML page (a Buy Page). A typical Buy Page is shown in FIG. 16, and its purpose and operation has been explained earlier. Another lava servlet on he Store Builder Server preserves the state between HTTPd requests in the shopping basket. The shopping basket keeps track of the data portion of the price URL for all flems that

d. Adaptability of the Development Tool's Interfaces The Development Tool is also adaptable to different levels of merchant requirements and/or sophistication. It offers 5 different levels of functionality depending on what the merchant needs or desires. These are called, from the simplest to the most robust: Web Card, Basic, Standard, Commerce, and Advanced. This feature is quite valuable in that a single interface cannot meet every merchant's needs. The simplest mode should appeal both to merchants that require only a small Web site and to merchants that require a larger Web site but are not proficient with the Web and with computers. A more advanced mode, however, can save the proficient merchant time, as well as provide more function

The look and feel of the Development Tool can also be adapted. The Tool incorporates a particular look and feel which includes a large number of items that affect the presentation of information to the tool user. Examples include the use of icons, radio buttons, using tabs to show other features available, etc. As mentioned in the introduction, a merchant may not like the standard tool look and feel or may simply want a different one for a variety of reasons. The Development Tool is an object-oriented application, and its look and feel is provided by a Java class. This class can be removed and another used in its place in order to provide a different look and feel.

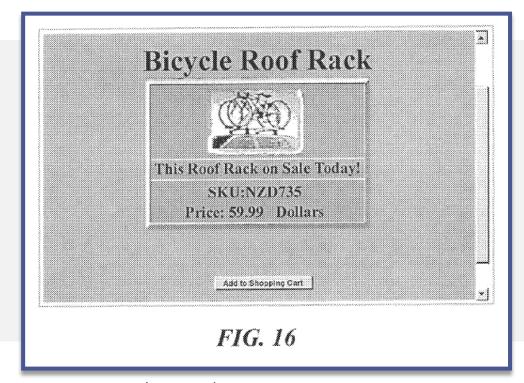
7. General Implementation

Development Tools, for merchants desiring to create Web pages for electronic commerce systems, in accordance with the present invention, can be, at least partially, implemented by hardware, software, or a combination of both. This may be done for example, by a Java application running on a

Source: Moore (Ex. 1010), 12:1-32

Moore IPRs – Converting price URL to Buy Page

 The Development Tool on the Store Builder Server decrypts the price URL and converts it to "an HTML page (a Buy Page)."



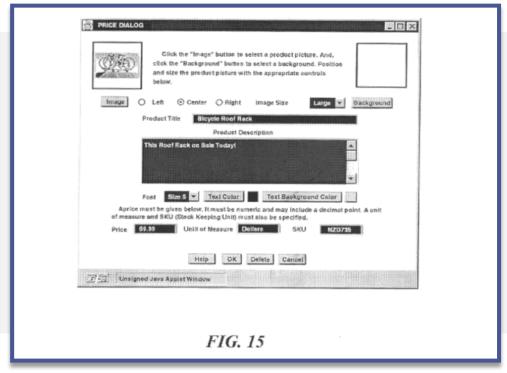
The Store Builder Server is able to decrypt the price URL data and convert it into an HTML page (a Buy Page). A typical Buy Page is shown in FIG. 16, and its purpose and operation has been explained earlier. Another Java servlet on the Store Builder Server preserves the state between HTTPd requests in the shopping basket. The shopping basket keeps track of the data portion of the price URL for all items that a shopper wants to buy from the Web pages.

Source: Moore (Ex. 1010), 12:25-32.

Source: Moore (Ex. 1010), Fig. 16

Moore IPRs – Buy Pages Use the Defaults

- Price URL is a link to a Java servlet in the Development Tool on the Store Builder Server.
- The price URL can be attached to "any style component."
- The price URL includes "several fields used to customize the Buy Page."



The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embodiment, on the Store Builder Server and can be attached to any style component. The Web customer would then select, for example by clicking with a mouse, the style component in order to buy the product which it describes. Alternate embodiments could use the price URLs to link straight to the Transaction Server, or to another site. The price URL has attached an encrypted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store

Source: Moore (Ex. 1010), FIG. 15

Source: Moore (Ex. 1010), 12:3-18.

Moore IPRs – PO Mischaracterizes Testimony

- DDR provides slightly altered, out of context testimony in an effort to identify an alleged admission by Shopify's Expert, Dr. Shamos, that Moore fails to make a specific disclosure about headers and footers.
- DDR edits an isolated portion of Dr. Shamos's testimony to make the following statement: "Petitioner's own witness, Dr. Shamos, agrees that Moore contains no explicit statement: "Q. Moore never refers to applying headers and footer [to Buy Pages] as such; correct? A. That's correct. Ex. 2027 at 117:10-22." Patent Owner's Sur Reply, at p. 3.

In context, Dr. Shamos's testimony is clear.

```
And so, just to be clear, you don't
claim here, or anywhere else, that Moore
explicitly says that head and footer
information that's collected by the Development
Tool is applied to the buy page configuration
in the price URL; right?
        I think Moore discloses that. I
think that's what the meaning of "every page"
          Okay. You're relying on "every
page," including buy pages; right?
    A. A buy page is a page. "Every page"
means every page. Yes.
          So, it's your contention that where
Moore uses the term "every page" or "each
page," that necessarily includes the buy pages;
correct?
          Yes. They're all created by the
```

```
same tool.
          Okay. But you're not aware of and
you haven't cited any portion of Moore that
actually comes right out and says, "and this
header and footer information is applied to buy
pages"; right?
    A. Right. It already says that by
saying "every."
          So, the answer to my question is
ves, it -- the Moore -- Moore never refers to
applying a header and footer to buy pages as
such?
          Except through the use of the word
"every."
                MR. McNAMARA: Objection.
          Except through the use of the word
"every"?
           Uh-huh.
          Moore never refers to applying
headers and footer as such; correct?
          That's correct.
```

Moore IPR – DDR's Arguments Are Baseless

- DDR's arguments regarding Moore are based on the assertion that Petitioner made several assumptions about the disclosure of Moore.
 Petitioner did not.
 - Petitioner relies on express disclosures to support its arguments.
 - DDR's argument is based on conjecture and wishful thinking.
 - The tenuous nature of DDR's argument is shown by the fact that the argument is not even internally consistent throughout DDR's briefing.

- In its Sur-Reply, DDR alleges that Petitioner assumes that "a single tool, the Development Tool" generates the Storefront and Buy Pages. PO Sur-Reply (IPR2018-01011, Paper 24), 5.
- The express disclosure of Moore provides this fact.

The Tool, as either an applet which would run on top of a browser or as an application, would be downloaded from a Store Builder Server. Referring to FIG. 4, there is shown a distributed electronic commerce system 400 with a Store Builder Server 402. The merchant could download the Java wizard applet to build the pages for the Web storefront, which will reside on the Store Server 204. The Store Builder Server 402 would also contain Java servlets that would receive the HTML from the wizard applet for the storefront pages that the merchant designed and would build the store pages from this HTML. This, of course, would happen when the merchant initially designed the pages, or whenever the merchant updated or modified them. The servlet, on the Store Builder Server 402, would then publish the Web storefront pages wherever the merchant designates. The

The Store Builder Server is able to decrypt the price URL data and convert it into an HTML page (a Buy Page). A typical Buy Page is shown in FIG. 16, and its purpose and operation has been explained earlier. Another Java servlet on the Store Builder Server preserves the state between HTTPd requests in the shopping basket. The shopping basket keeps track of the data portion of the price URL for all items that a shopper wants to buy from the Web pages.

Source: Moore (Ex. 1010), 5:51-63.

Source: Moore (Ex. 1010), 12:25-32.

- Patent Owner admits to this fact in their Patent Owner's Response at 35-36.
- Both the Storefront Pages and the Buy Pages are created by the Development Tool on the Store Builder Server.

The Development Tool creates the Storefront Pages using the "templates"

(and making necessary modifications), then Moore teaches: "When the pages are

Source: PO Resp. (IPR2018-01008, Paper 21), 35.

published" in that fashion. The Buy Page, by contrast, is defined by a separate

section of the Development Tool; Moore shows "the dialog page for the price

URL" in Figure 15. 12:23-24. The Buy Page is not "uploaded and published" but

instead is created and served by the Store Builder Server (or Transaction Server).

Source: Id. at 36.

- In its Sur-Reply, DDR alleges that Petitioner assumes that the defaults extend only to a subset of pages (alleged Assumption 2). PO Sur-Reply (IPR2018-01011, Paper 24), 5.
- The express disclosure of Moore provides this fact.
- DDR points to no disclosure that limits this disclosure to "Storefront Pages."

Each page created by the merchant can, as mentioned earlier, be modified. Style components can be added, deleted, moved, resized, etc. Another feature of the Development Tool is that it presents the page just as a Web customer will see it. This feature, called WYSIWYG for "what you see is what you get" allows the merchant to see, without publishing and browsing, what the published page will look like when it is published. Additionally, the Development Tool also provides a previewing option which uploads all of the pages and allows the merchant to view the entire Web site with a Web browser.

Source: Moore (Ex. 1010), 11:51-61.

Page styles allocate certain portions of each page to text, images, multimedia, etc. The style thus provides a template for all of the different content-related objects ("style components") that will appear on a page. Although the position and sizes of the style components are defined by the style, they can be changed by the merchant for any page. Referring to FIG. 8, there is shown a screen 800 which prompts the merchant to select a background and a style for the page. Page styles are further elaborated in FIG. 9, and FIG. 10 shows one style or template in isolation.

Source: Moore (Ex. 1010), 11:27-37.

- In its Sur-Reply, DDR alleges that Petitioner assumes that the price URLs access merchant specific styles (alleged Assumption 3). PO Sur-Reply (IPR2018-01011, Paper 24), 5.
- The express disclosure of Moore provides this fact.

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embodiment, on the Store Builder Server and can be attached to any style component. The Web customer would

Source: Moore (Ex. 1010), 12:3-8.

 In its Sur-Reply, DDR alleges that Petitioner assumes that the price URLs is a link to merchant specific look and feel information (alleged Assumption 4). PO Sur-Reply (IPR2018-01011, Paper 24), 6.

The express disclosure of Moore provides this fact.

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embodiment, on the Store Builder Server and can be attached to any style component. The Web customer would

Source: Moore (Ex. 1010), 12:3-8.

using a Uniform Resource Locator ("URL") 506. The URL, called a price URL, contains all of the relevant information on the product, and all the information necessary to build a "Buy Page." The relevant product information includes a picture of the product, the product's price, and a description of the product.

Source: Moore (Ex. 1010), 6:17-22.

straight to the Transaction Server, or to another site. The price URL has attached an encrypted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store

Source: Moore (Ex. 1010), 12:13-18.

- DDR again provides slightly altered, out of context testimony in an effort to identify an alleged admission by Shopify's Expert, Dr.
 Shamos, that Moore fails to make a specific disclosure about templates.
- DDR's slightly edited quotation is misleading as excerpted below. Dr. Shamos testified that the Development Tool creates the "everything that is needed to generate the buy page[.]" DDR attempts to make a distinction where there is none.
- In context, Dr. Shamos's testimony is clear.

```
Q. The Development Tool does not create a buy page; right?

MR. McNAMARA: Objection.

A. It doesn't create a buy page. It creates everything that is needed to generate the buy page, including its format.
```

Source: Shamos Depo. Tr. (Ex. 2027), 177:13-18.

```
Q. And there's a reference here to creating pages, but it doesn't say "all pages"; right?

A. It doesn't say "not all pages."
Q. That's not specific; right?
A. It just says creating pages. But then it talks about the "Tool" with a capital T, and the tool is described in detail elsewhere in Moore.
Q. Right. But in this paragraph that follows, it doesn't say what pages the templates are applied to; right?
A. The pages that the tool creates. It can't apply to pages the tool doesn't create.
```

Source: Shamos Depo. Tr. (Ex. 2027), 59:7-20.

• When viewed in context, Dr. Shamos's testimony is clear in that the Development Tool generates all the materials necessary to create a Buy Page using java servlets.

- Q. But the buy page is not created by the Development Tool; right?
- A. The design of the buy page is. The actual buy page is instantiated into HTML on the fly by the Store Builder Server when the price URL is activated.
- Q. Right. So, the buy page doesn't exist until it's the -- the price URL has been activated; right?

MR. McNAMARA: Objection.

A. The buy page itself doesn't exist. The material necessary to create it exists and it -- the design and formatting of it exists.

Source: Shamos Depo. Tr. (Ex. 2027), 176:21-177:9.

So, it says, "The Store Builder
Server receives the price URL, which is
encrypted, and a Java 'Buy Page' servlet builds
a Buy Page from the received HTML." That's the
method that you're referring to here; right?

A. Yes. That's part of it.

Source: Shamos Depo. Tr. (Ex. 2027), 87:7-12.

- Q. Okay. And it has a Java build page servlet that does that; right?
 - A. Yes.
- Q. But the method for automatically generating and transmitting the second Web page is encompassed by receiving the URL and using the encrypted URL, decrypting it, and building the Java Buy Page using the servlet; right?
 - A. Using -- correct.

Source: Shamos Depo. Tr. (Ex. 2027), 88:6-14.

- DDR's "Impossibility" argument is a red herring.
- Dr. Keller's price URL argument ignores requirements in the specification the price URL is a link.

The Reply's non-answer ignores the fact that the *basis* for Dr. Shamos' belief that Moore's Price URL must contain unmentioned pointers depends entirely on his now-disproven "impossibility" theory. *See* Ex. 2025 at ¶39(c) (unrebutted Keller testimony: "Based on that test, I disagree with Dr. Shamos' speculation that, because of the alleged impossibility, a POSITA would have understood that Moore didn't really mean what he said explicitly and would have understood Moore instead to have been referencing some kind of link within the URL, which Moore does not teach.").

The Development Tool can be used to support a variety of electronic commerce models. The preferred embodiment uses a special URL referred to as a "price URL." A price URL is a link to the Java servlets residing, in the preferred embodiment, on the Store Builder Server and can be attached to any style component. The Web customer would

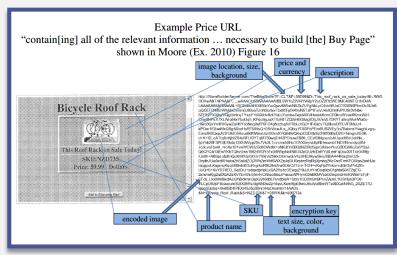
Source: Moore (Ex. 1010), 12:3-8.

Source: PO Sur-Reply (IPR2018-01011, Paper 24), 20.

- Dr. Keller concedes that his example price URL which has omitted several items was already close to the maximum byte limit of web browsers at the time of Moore.
- Dr. Keller's price URL omits at least the "quantity of measure," "merchant ID," and background picture.
- Dr. Keller's price URL is not even encrypted.

Source: Example Price URL (IPR2018-01008, Ex. 2032).

Source: Keller Decl. (IPR2018-01008, Ex. 2025) at ¶ 39(d).



price URL a more robust Buy Page of that sort. Encoding the simple information shown in Figure 16 came close to the byte limit (1651 of 2048).

the time). The example used the actual image from Moore's Figure 16 scaled to the size of 120 × 90 pixels, calculated by taking the ratio of the image width shown in Moore's Figure 16 to the screen width, assuming a monitor resolution of 640 × 480 pixels, which was a common display resolution for computers in 1998. The example URL includes the domain (StoreBuilderServer.com), path (TheBikeStore), imageFormat (centered. large, transparent background). Price (59.99 in dollars), Description ("This roof rack on sale today!"), encoded GIF Image, productName ("Bicycle Roof Rack"), Sku ("NZD735"), Text size, text color and text background (05, black text, gray background), and encryption key ("d0ff7f3a" used to demonstrate the URL was not forged or modified). Based on that test, I

straight to the Transaction Server, or to another site. The price URL has attached an encrypted message that contains a text description of the item for sale, including a picture, its costs, quantity of measure, the merchant's ID, several fields used to customize the Buy Page that is created from the attached data, and a special signature from the Store Builder Server. The encoding is done with the public key of the Store

Source: Keller Decl. (IPR2018-01008, Ex. 2025) at ¶ 39(c).

Source: Moore (Ex. 1010), 12:13-17.

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



DEPENDENT CLAIMS



- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Moore IPR – Discloses Commissions

 Claim Language – Host/merchant receives payment of a "commission" from the outsource provider.

4. The method of claim 3 wherein the host and the outsource provider are parties to a contract providing for payment to the host of a commission based on the level of sales made through activation of URLs displayed on the source web page, and further comprising, automatically with the computer system of the outsource provider, recording data to facilitate payment of the commission to the host following selection of the checkout URL.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 4.

6. The method of claim 1 wherein the owner of the source web page is party to a contract providing for receipt of a commission based on the level of sales made through activation of the URL as a result of a transaction involving the commerce object displayed on the source web page.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 6.

Moore IPR – Discloses Commissions

- Moore teaches revenue sharing.
- The specifications of the DDR Patents do not attribute a specialized meaning to commission.
- DDR cites a definition of commission as "a fee paid to an agent or employee for transacting a piece of business." Ex. 2033.

Moore discloses revenue sharing between parties:

merchants and their contact information. Clearly, however, Transaction Servers will want to keep track of sales so that they can bill the merchant's for their services, and may want to store additional information and statistics about the merchants as well.

Source: Moore (Ex. 1010), 9:23-27.

Moore IPR – Discloses Commissions

- Dr. Shamos points to the disclosure of Moore as disclosing revenue sharing arrangements. Shamos Decl. (IPR2018-01011, Ex. 1002), ¶ 127.
- Dr. Keller does not dispute that Moore makes this disclosure.
- To the extent that DDR is arguing that it is a payment from the Outsource Provider to the Host that differentiates their claim, Moore is agnostic about whether the funds are flowing through the Transaction Servers to the merchants or through the merchants to the Transaction Servers.

Source: Moore (Ex. 1010), 9:23-27.

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INDEPENDENT CLAIMS



DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Moore IPR – Hierarchical-page electronic catalog limitations

correlated with the source web page is an electronic catalog listing a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the electronic catalog.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 7.

second web site, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the second web site, each pertaining to a subset of the product offerings in the catalog.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 3.

of an outsource provider, and wherein the composite page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the catalog.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 4.

Moore IPR – Discloses Hierarchical-page electronic catalog limitations

- Moore teaches hierarchical-page electronic catalogs
- Moore explicitly addresses the problem of maintain an updated "Web catalog" and keeping it up to date

A second problem is meeting the requirement that the Web storefront or Web catalog be constantly up-to-date.

Source: Moore (Ex. 1010), 2:34-35.

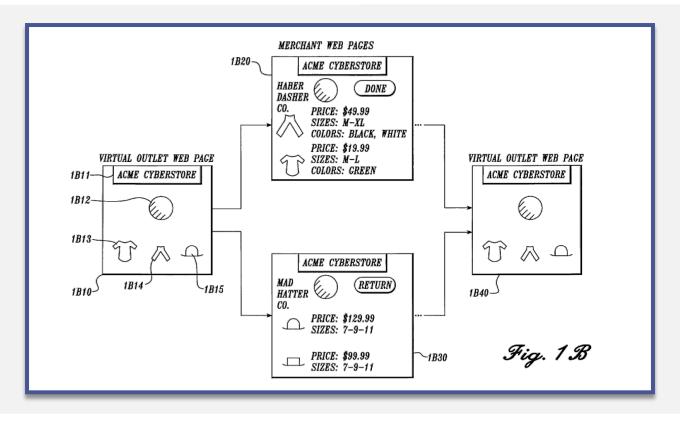
 Moore analogizes its web storefronts to "traditional catalog companies with its good available via the Web" and makes a specific reference to L.L. Bean, which provides hierarchical sorting of its goods (shirts, shoes, fishing equipment, etc)

cally. Unlike traditional storefronts, these automatic capabilities enable a merchant to have its goods offered for sale twenty four hours a day, every day of the year (for an example of a traditional catalog company with its goods available via the Web refer to L.L. BEAN of Freeport,

Source: Moore (Ex. 1010), 1:63-67.

Moore IPR – Discloses Hierarchical-page electronic catalog limitations

- To the extent Moore does not disclose, Arnold discloses.
- A POSA would combine Moore and Arnold.



Source: Arnold (Ex. 1011), Fig. 1B.

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Moore IPR – Catalog Searching Limitations

8. The method of claim 7 further comprising, automatically with the computer system, (i) using search parameters inputted at the visitor computing device to search for specific products within the catalog, and (ii) serving to the visitor computing device additional instructions directing the visitor computing device to display the results of the search.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 8.

4. The method of claim 3 further comprising, automatically with the server computer, (i) accepting search parameters inputted through the browser of the visitor computer, (ii) using said parameters to search for specific products within the catalog, and (ii) serving the results for display using the browser of the visitor computer.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 4.

5. The method of claim 4 further comprising, automatically with the computer system, (i) accepting search parameters inputted at the visitor computing device, (ii) using said parameters to search for specific products within the catalog, and (iii) serving the results for display on the visitor computing device.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 5.

Moore IPR – Discloses Catalog search parameters

- Moore discloses catalog searching.
- Moore teaches the inclusion of a search engine among other features related to the merchants virtual store: pictures and prices.

 Dr. Keller's rebuttal, that Moore discloses a general use search engine divorced from any function of the website itself, is not credible and ignores the teaching of Moore as a whole.

The Web storefront 106 acts as the virtual store for the customer 114, and contains whatever information the merchant has built into the Web-site (e.g. pictures, prices, search engines, etc.). There is provided, according to the present invention, a Development Tool for designing the Web storefront 106. This tool greatly simplifies the task of creating the Web storefront initially and of modifying it and updating it. The Tool also ensures that the operation with the Transaction Server 202 is seamless for the customer 114.

Source: Moore (Ex. 1010), 5:27-35.

searching an electronic catalog for products. It is quite possible that a merchant, such as Yahoo!, might have built into its website a general search engine, entirely disconnected from searching a product catalog, while also selling products through links on such page (or other pages).

Source: Keller Decl. (IPR2018-01011, Ex. 2025), ¶ 47(b)(ii).

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Moore IPR – Matching URL

2. The method of claim 1 wherein the visually perceptible elements comprise data defining a set composed of a plurality of URLs, each of which URLs appear on at least some of the web pages of the first website, and which URLs point to respective web pages of the first website.

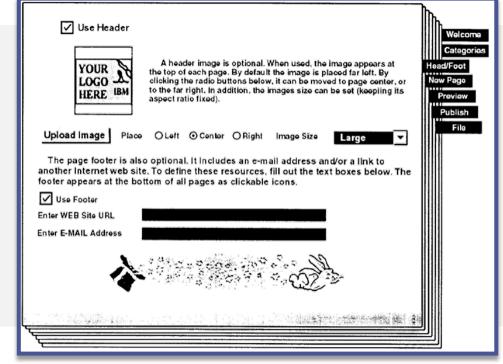
Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 2.

3. The method of claim 1 wherein at least some of the visually perceptible elements are each associated with respective of a plurality of URLs, each of which URLs also are present on at least some of the web pages of the host website, and which URLs point to respective web pages of the host website.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 3.

Moore IPRs – Footer Disclosed as Including URLs

- The price URL can be attached to "any style component," including common headers and footers.
- The header is a style component.
- The footer contains a URL.



Source: Moore (Ex. 1010), Fig. 7.

The second step is to create the default header and footer. The page header and footer are typically used for the company name and logo. An email address and a link URL are also commonly included. As with many of the features of the Development Tool, the field size may be adjusted and images may be loaded. In this case, the height of the header, for example, may need to be increased in order to accommodate a particular company logo. Referring to FIG. 7, there is shown a screen 700 in which the merchant is prompted to enter the information for the header and the footer. The screen 700 further illustrates the simplicity of the merchant interface.

Source: Moore (Ex. 1010), 11:4-15.

Current Status | Moore IPRs

The Board took up the three Moore petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Moore

INDEPENDENT CLAIMS



DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Moore IPR – Catalog Searching Limitations

5. The method of claim 1 wherein the commerce object associated with the URL that has been activated comprises information defining a multitude of products of at least the merchant, and further comprising, automatically with the server computer, (i) accepting search parameters inputted through the browser of the visitor computer, (ii) using said parameters to search for specific products within the plurality of products, and (iii) serving the results for display using the browser of the visitor computer.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 5.

4. The method of claim 1 wherein the commerce object associated with the URL that has been activated comprises information defining an electronic catalog having a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the catalog.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 4.

Moore IPR – Discloses Catalog search parameters

- Moore discloses catalog searching for a multitude of products.
- Moore teaches the inclusion of a search engine among other features related to the merchants virtual store: pictures and prices.

The Web storefront 106 acts as the virtual store for the customer 114, and contains whatever information the merchant has built into the Web-site (e.g. pictures, prices, search engines, etc.). There is provided, according to the present invention, a Development Tool for designing the Web storefront 106. This tool greatly simplifies the task of creating the Web storefront initially and of modifying it and updating it. The Tool also ensures that the operation with the Transaction Server 202 is seamless for the customer 114.

Source: Moore (Ex. 1010), 5:27-35.

 Dr. Keller's rebuttal, that Moore discloses a general use search engine divorced from any function of the website itself, is not credible and ignores the teaching of Moore as a whole.

merchant, such as Yahoo!, might have built into its website a *general* search engine, entirely disconnected from searching a product catalog, while also selling products through links on such page (or other pages).

Source: Keller Decl. (IPR2018-01011, Ex. 2025), ¶ 47(b)(ii).

Loshin IPRs - Ground 1: Loshin

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Loshin	§ 102(b)	1-5, 7, 8, 11-13, and 16-18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, and 11-18
Loshin and the InfoHaus Documents	§ 103(a)	1, 7, 11, 16, and 17	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Loshin and Moore	§ 103(a)	1-5, 7, 8, 11-15, and 17-18	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18

Summary of Instituted Grounds

Moore IPRs

Three petitions pertain to Moore and the Digital River publications as primary references, and Arnold as the secondary reference.

- IPR2018-001011 –
 U.S. Patent No. 9,639,876
- IPR2018-001012 –
 U.S. Patent No. 9,043,228
- IPR2018-001014 –
 U.S. Patent No. 8,515,825

Loshin IPRs

Three petitions pertain to Loshin as the primary reference, and Moore and the InfoHaus documents as the secondary references.

- IPR2018-001008 –
 U.S. Patent No. 9,639,876
- IPR2018-001009 –
 U.S. Patent No. 9,043,228
- IPR2018-001010 –
 U.S. Patent No. 8,515,825

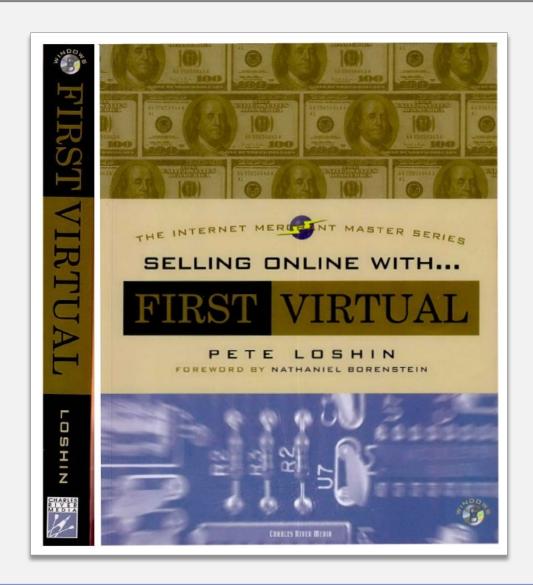
Summary of Instituted Grounds – Loshin IPRs

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Loshin	§ 102(b)	1-5, 7, 8, 11-13, and 16-18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, and 11-18
Loshin and the InfoHaus Documents	§ 103(a)	1, 7, 11, 16, and 17	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Loshin and Moore	§ 103(a)	1-5, 7, 8, 11-15, and 17-18	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18

Loshin IPRs - Ground 1: Loshin

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Loshin	§ 102(b)	1-5, 7, 8, 11-13, and 16-18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, and 11-18
Loshin and the InfoHaus Documents	§ 103(a)	1, 7, 11, 16, and 17	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Loshin and Moore	§ 103(a)	1-5, 7, 8, 11-15, and 17-18	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18

Loshin IPRs – Overview



Source: Loshin (Ex. 1013).

Loshin IPRs – Overview

- Discloses InfoHaus, an electronic commerce service.
- Merchants can create web pages on InfoHaus, their own servers, third party servers, or may distribute web pages between InfoHaus and other servers.

If You Outsource Your Web Site...

You may not want to go to all the trouble of building your Web site from scratch, but you may also want more options and control over your content than the InfoHaus can offer. There are many organizations offering Web services through

There are many organizations offering Web services through their own Web servers. These companies maintain Web servers and allow subscribers to load their own HTML documents on the server. However, to accept First Virtual payments through these servers, you'll need to be able to load CGI scripts — something that not all Internet presence providers are willing to allow. Discuss this issue with your provider before you make any commitments, and they may be eager to accommodate your desires (particularly because the scripts can be used by any other subscriber who wishes to become a First Virtual seller).

Another alternative is to continue to use the InfoHaus to handle your transactions, but to use some other Web site to publish your products. This option is discussed in the section of Chapter 10 that discusses adding forms to your InfoHaus storefront.

Source: Loshin (Ex. 1013), 248-249.

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS



Common overall appearance



Providing page pairs for internet transactions

DEPENDENT CLAIMS



Commission limitations



Hierarchical-page electronic catalog limitations



Catalog-searching limitations



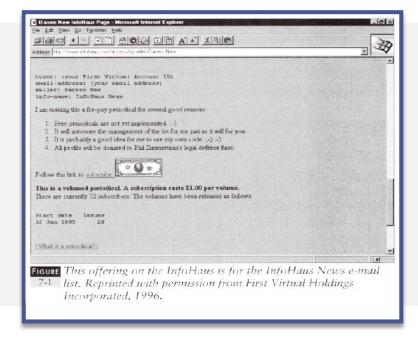
Matching-URL limitations

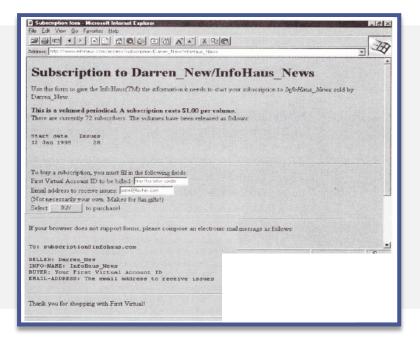


Multi-product searching limitations

Loshin IPRs – Page Pairs Have Corresponding Overall Appearance

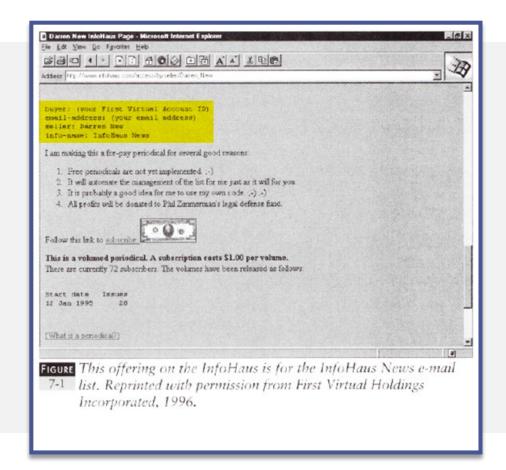
- Figs. 7-1 and 7-2/7-3 depict an exemplary web page pair with such correspondence
 - Same text font
 - Same text size
 - Same text color
 - Same background color

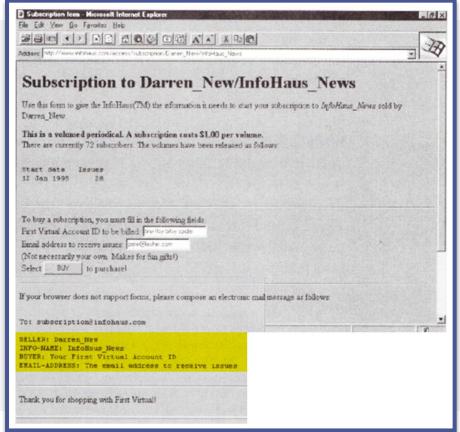




Loshin IPRs – Overview

The email purchase instructions share multiple common textual elements.





Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Figs. 7-2 and 7-3 combined.

Loshin IPR – Page Pairs Have Corresponding Overall Appearance

- Fig. 7-1 and 7-3 share common textual elements for subscription information.
- The text is the same font.
- The text is the same size.
- The text is the same color.
- The text has an almost identical composition.
- Background same.

```
buyer: (your First Virtual Account ID)
email-address: (your email address)
seller: Darren New
info-name: InfoHaus News
```

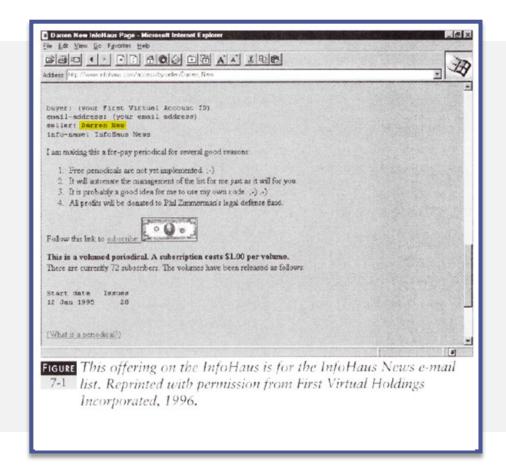
Source: HQ Scans of Loshin (IPR2018-01008, Exhibit 1024), Fig. 7-1 (excerpted).

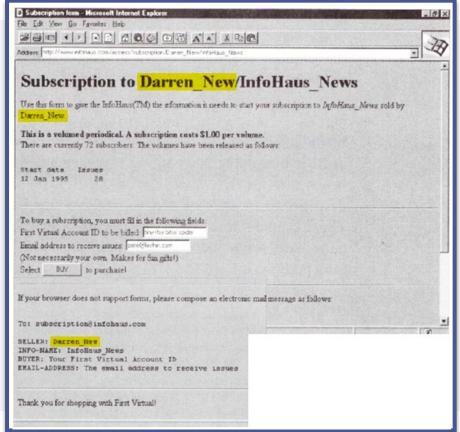
```
SELLER: Darren New
INFO-NAME: InfoHaus News
BUYER: Your First Virtual Account ID
EMAIL-ADDRESS: The email address to receive issues
```

Source: HQ Scans of Loshin (IPR2018-01008, Exhibit 1024), Fig. 7-3 (excerpted).

Loshin IPRs – Overview

The merchant is also identified on both web pages as being Darren New.

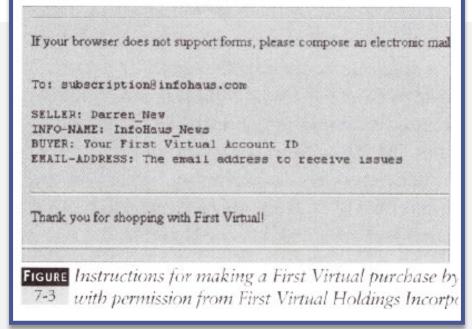




Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Figs. 7-2 and 7-3 combined.

Loshin IPRs – Page Pairs Have Corresponding Overall Appearance

- Pages "primitive" comprised of mostly textual elements.
- Textual similarities are visual elements between webpages.



Source: HQ Scan of Loshin (Ex. 1024), Fig. 7-3 excerpted

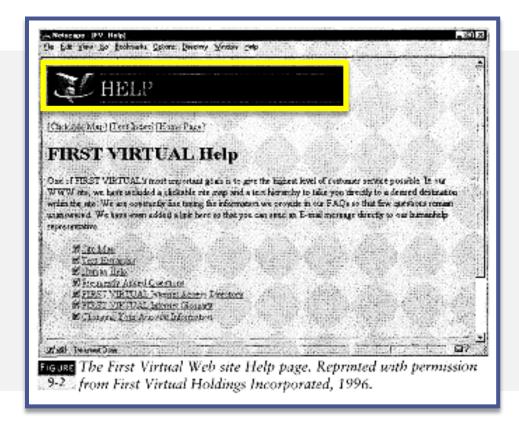
```
that these are all pages of Darren New. I mean, it's limited what — these are very primitive Web pages. They're essentially all textual. So creating the kind of visual correspondence we think of now with beautiful graphics and color and stuff like that is not shown in Loshin because it's so early.
```

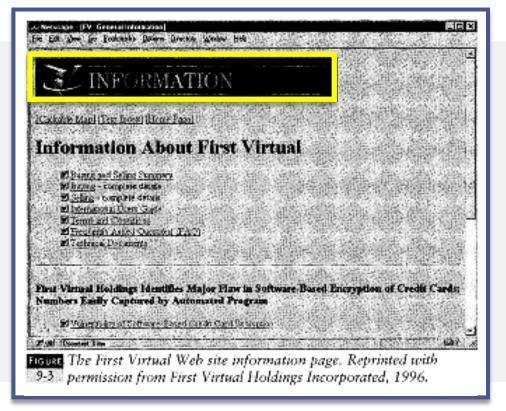
Source: Shamos Depo. Tr. (Ex. 2027), 195:19-25.

And these pages are so primitive in terms of being Web pages, they're virtually totally textual. It's not so easy to make visual correspondence, so you do it by making sure that the buyer knows that it's Darren New associated with both pages.

Source: Shamos Depo. Tr. (Ex. 2027), 225:11-16.

In addition to teaching the use of background and textual elements, Loshin also teaches
the use of trademarks and trade dress in headers as images.

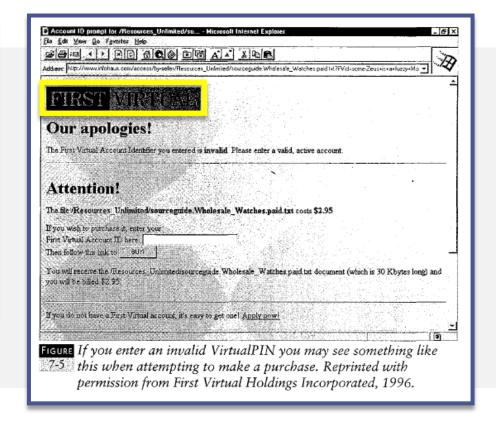




Source: Loshin (Ex. 1013), 252, 253.

 Loshin discusses the use of HTML to customize webpages, which allows insertion of logos and images.

Information transmitted from servers to browsers comes from Web documents stored on the server that have been specially tagged using Hypertext Markup Language (HTML) tags that define the different functional pieces of each document. As mentioned earlier, tags allow different parts of a document to behave differently; most important are the abilities of text and graphics to behave as pointers to other parts of a document, other documents and resources, and especially resources on other Web servers. HTML documents consist of plain text (ASCII) files and may point to graphics files, other types of multimedia files (for example, sound or full-motion video files) stored in standard formats, or other network resources (URLs).



Source: Loshin (Ex. 1013), 15, 198.

Claim Language – Each independent claim requires a shared "overall appearance."

wherein the visual correspondence relates to overall appearance of the composite web page as compared to the source web page, but excluding the commerce object information and the URL; and

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 1.

(ii) a plurality of visually perceptible elements derived from the retrieved pre-stored data defining an overall appearance of the composite web page that, excluding the information associated with the commerce object, visually corresponds to the source web page,

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 1.

wherein the plurality of visually perceptible elements define an overall appearance of the composite page that, excluding the information associated with the commerce object, visually corresponds to the source web page, and

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 1.

Exact repetition **NOT** necessary

- The Board agreed noting that textual features including the textual composition ("seller's name") and textual features were sufficient to establish visual correspondence.
- Patent Owner improperly focuses on text that is "repeated on both pages."

information." Ex. 1002 at ¶97, 102. Unchallenged evidence now proves that "the only text repeated on both pages relates to the commerce object being offered. The common lines of text are 'commerce object information' because they identify information about that mail list, including its start date, number of issues, number of subscribers, and price." Ex. 2025 at ¶54. The Institution Decision's finding that the Preliminary Response was "unpersuasive because ... the textual composition [might] affect a page's appearance" is thus no longer pertinent. Paper 12 at 18.

Exact repetition **NOT** necessary

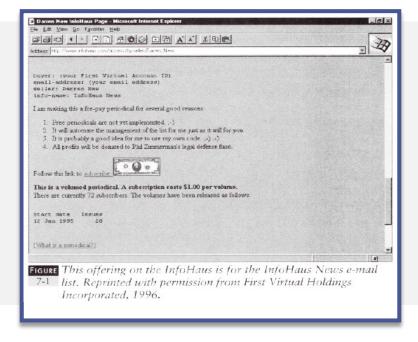
- Patent Owner admitted that no basis to require exact matching visual elements.
- Patent Owner has only attempted to define "overall appearance" as whatever is not present in Loshin and Moore.

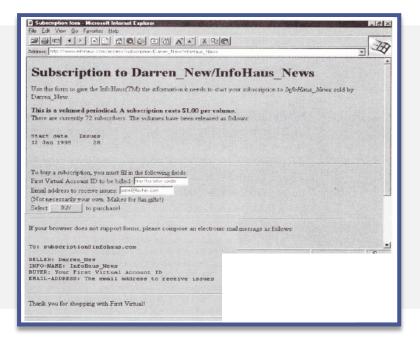
that the claim limitations require that the pages must match exactly, as there is no basis for such a position in the specification, file history, or previous determinations of overall appearance. Nevertheless, the Board should not *overlook* clear differences that profoundly detract from any commonality of visual appearance between the two pages.

Source: PO Resp. (IPR2018-01008, Paper 21), 23.

Ignoring the *presentation* of commerce information is error

- Size, color, and typeface of text NOT commerce information.
- Background color NOT commerce information.





Even accepting Patent Owner's argument that you must blot out all commerce object information as if it is magically not there:

- Patent Owner's argument fails because not all of the text is "commerce object" information
- To make its argument, Patent Owner ignores its own clarifying questions to Dr. Shamos

```
The second line, "Use this form."
You said that was part of the commerce object
as well; didn't you?
          I don't think so.
           Well, the transcript will --
           Well, I shouldn't have.
          Okay. So, you now claim that
second -- the second line, "Use this form to
give the InfoHaus the information it needs to
start your subscription to InfoHaus News sold
by Darren New," that is not information that
   -- that is not commerce object information?
    A. Well, I mean, it does name the
commerce object. It names part of it.
           It doesn't name the fact that there
is -- what the cost is or how many issues
you're going to get of it or the start date
```

```
But obviously, the product is InfoHaus News.

Q. All right. So, this sentence, this
line, includes information about the product
being sold; correct?
A. Yes.

Q. All right. And Darren underscore
New is part of that line of text; right?
A. Well, but Darren New is not the
product information. That's the seller.

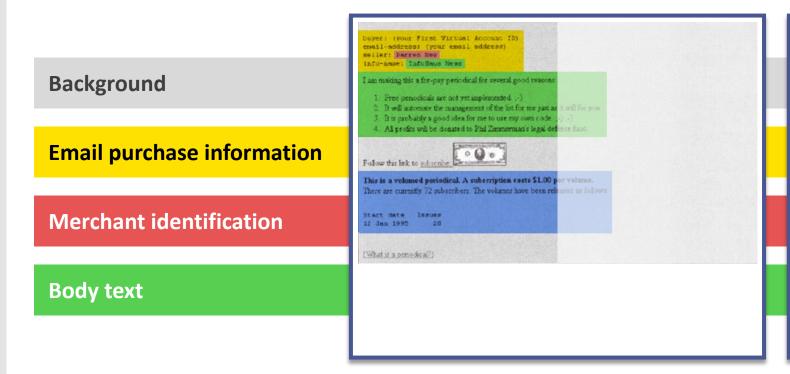
Q. Well, you said that the heading
Subscription to Darren New/InfoHaus News was
commerce object information; right?
A. No. The InfoHaus News part is.

Darren New isn't. Darren New is the seller.

Q. I see.
A. That would be the same for every
commerce object that he sold; so you can't
identify the commerce object.
```

Source: Shamos Depo. Tr. (IPR2018-01008, Ex. 2027), 223:9-224:19.

• Even applying Dr. Keller definitions of excluded "commerce object" information (the blue shaded blobs), the web page pair depicted in Figs. 7-1 & 7-2/7-3 still share a multiple corresponding elements:

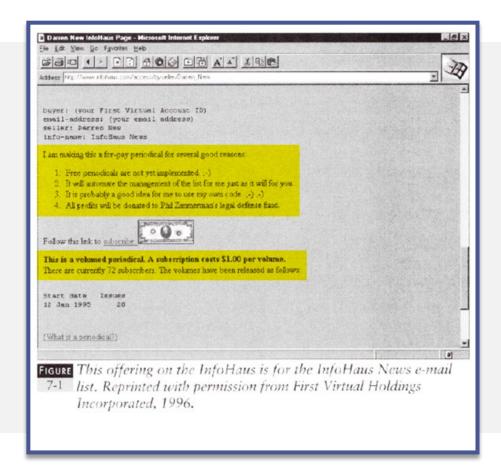


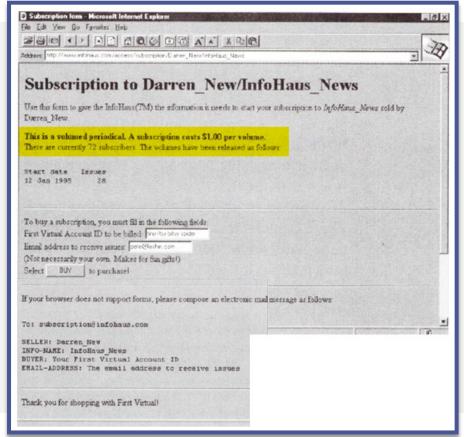


Source: PO Sur-Reply (IPR2018-01008, Paper 25), 10.

Loshin IPRs – Overview

The remaining body text also shares textual features.





Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Figs. 7-2 and 7-3 combined.

- These blocks of text share common textual elements for information.
- The text is the same font.
- The text is the same size.
- The text is the same color.
- Background is same color.

I am making this a for-pay periodical for several good reasons:

- Free periodicals are not yet implemented ;-)
- 2. It will automate the management of the list for me just as it will for you.
- 3. It is probably a good idea for me to use my own code. ;-) ,-)
- 4. All profits will be donated to Phil Zimmerman's legal defense fund.

Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Fig. 7-1 (excerpted).

Use this form to give the InfoHaus(TM) the information it needs to start your subscription to InfoHaus_News sold by Darren_New.

Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Fig. 7-2 (excerpted).

- Petitioner looks to the similarities between the elements found on the web page pairs to establish a corresponding overall appearance.
- As explained above for Moore, the Federal Circuit determined Dr. Keller's approach in the district court case was fundamentally flawed because it assumed the "overall match."

Both the district court and DDR introduced a limitation found neither in the # 572 patent's claims nor the parties' stipulated construction. In particular, the district court introduced a requirement that the generated composite web page have an "overall match" in appearance with the host website, beyond what is expressly recited by the claims.

Source: DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245 (IPR2018-01008, Ex. 1017), 1254.

• Dr. Keller applies same approach as was rejected by the Federal Circuit, i.e. attempting to find elements which are perfectly replicated from one page to another, and should be rejected here.

52. I have applied the same standard that I used in the 2012 trial to the Loshin reference proposed as an anticipating prior art reference, specifically as to Figures 7-1 and 7-2. As I did in the trial, I created a list of ways in which the visual appearances of the two pages significantly differ:

Source: Keller Decl. (IPR2018-01008, Ex. 2025), ¶ 52.

• Dr. Keller relies upon Patent Owner's erroneous assumption, that the overall appearance requires exact duplication of elements from one page onto another.

7-2 do not have corresponding overall appearance in visual correspondence, excluding the commerce object information and the URL. The pages do not look alike in overall appearance, and the only text repeated on both pages relates to the commerce object being offered. The common lines of text are "commerce object

Source: Keller Decl. (IPR2018-01008, Ex. 2025), ¶ 54.

start date, number of issues, number of subscribers, and price. I do not see

correspondence on account of the background, font, or font size, because the

background could be artifacts of bad copying, and there is no reasonable inference

that the font or font sizes are set by the "Darren New" user as opposed to by

browser defaults.

Source: Keller Decl. (IPR2018-01008, Ex. 2025), ¶ 54.

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS



Common overall appearance



Providing page pairs for internet transactions

DEPENDENT CLAIMS



Commission limitations



Hierarchical-page electronic catalog limitations



Catalog-searching limitations



Matching-URL limitations



Multi-product searching limitations

Loshin IPR - Loshin Meets Claims Under PO's Interpretation

Claim Language – DDR argues that each independent claim requires separate servers.

resource locator (URL) within a source web page that has been served to the visitor computing device when visiting a website of a host that is a third party to the outsource provider, wherein the URL correlates the

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 1.

uniform resource locator (URL) within a source web page that has been served to the visitor computer when visiting a first website, wherein the URL correlates the

(b) automatically, with the server computer, serving to the visitor computer a composite web page of the second website, which composite web page includes:

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 1.

locator (URL) within a source web page that has been served to the visitor computing device when visiting a host website controlled by a third party to the owner of the computer system, wherein the URL correlates the

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 1.

Loshin IPR - Loshin Meets Claims Under PO's Interpretation

- Loshin discusses the use of multiple servers for hosting the source and composite web pages.
- Patent Owner improperly interprets "spectrum" as a binary option.

irst Virtual offers a complete solution for Internet commerce for the shoestring startup operation: digital transactions plus Internet service through the InfoHaus add up to a simple, low-cost Internet storefront. However, that answer is not for everyone. For example, you would probably want to First Virtual-enable your own Internet servers if any of these is true:

- · You need to sell hard goods on the Internet.
- You are able to manage your own Internet server, and already have one up and running.
- You started out with the InfoHaus, and the 8% commission you pay for the service is higher than what you would pay to maintain your own Internet servers.

Determining when to move up to your own server from the InfoHaus depends entirely on your own situation. At one end of the spectrum is the individual with minimal computer experience, minimal computer equipment, and no employees, friends, relatives, or co-workers with Internet expertise. This person would need to make a large investment of money (to buy an Internet server, software, and Internet connection) and time (to learn how to install, configure, maintain, and administer the server; to create the Internet storefront — and to enable the server to accept First Virtual payments).

At the other end of the spectrum, you may already have access to an existing Internet server — for example, "rental" space on an Internet presence provider's system, or space available through some other type of affiliation. You may also have access to Internet and systems expertise through your own experience or through that of a friend, relative, employee, or colleague. If this is the case, then enabling your server to accept First Virtual payments may be a good deal.

Source: Loshin (Ex. 1013), 244.

Source: Loshin (Ex. 1013), 244.

Loshin IPR – Loshin Meets Claims Under PO's Interpretation

Loshin discloses using multiple configurations along the spectrum, including utilizing the InfoHaus
alongside a "some other Web site to publish your products," "setting up their own Web server," or even
any configurations in between (e.g., working with "companies [that] maintain Web servers and allow
subscribers to load their own HTML documents on the servers").

If You Outsource Your Web Site...

You may not want to go to all the trouble of building your Web site from scratch, but you may also want more options and control over your content than the InfoHaus can offer.

There are many organizations offering Web services through their own Web servers. These companies maintain Web servers and allow subscribers to load their own HTML documents on the server. However, to accept First Virtual payments through these servers, you'll need to be able to load CGI scripts — something that not all Internet presence providers are willing to allow. Discuss this issue with your provider before you make any commitments, and they may be eager to accommodate your desires (particularly because the scripts can be used by any other subscriber who wishes to become a First Virtual seller).

Another alternative is to continue to use the InfoHaus to handle your transactions, but to use some other Web site to publish your products. This option is discussed in the section of Chapter 10 that discusses adding forms to your InfoHaus storefront.

Another alternative is to continue to use the InfoHaus to handle your transactions, but to use some other Web site to publish your products. This option is discussed in the section of Chapter 10 that discusses adding forms to your InfoHaus storefront.

Source: Loshin (Ex. 1013), 249.

LEARNING MORE ABOUT HTML AND CGI

One of the greatest benefits of selling through First Virtual is that you don't need to know C or Java or CGI programming, or how to write HTML documents. You don't even need your own Internet server. Even so, at some point most merchants will consider spicing up their InfoHaus storefront, or even setting up their own Web server. When that time comes, you will probably need some help learning how to use HTML and CGI to make your Internet store work.

Source: Loshin (Ex. 1013), 284.

Source: Loshin (Ex. 1013), 248-249.

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS





DEPENDENT CLAIMS



Hierarchical-page electronic catalog limitations

Catalog-searching limitations

Matching-URL limitations

Multi-product searching limitations

Loshin IPR – Discloses Commissions

 Claim Language – Host/merchant receives payment of a "commission" from the outsource provider.

4. The method of claim 3 wherein the host and the outsource provider are parties to a contract providing for payment to the host of a commission based on the level of sales made through activation of URLs displayed on the source web page, and further comprising, automatically with the computer system of the outsource provider, recording data to facilitate payment of the commission to the host following selection of the checkout URL.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 4.

6. The method of claim 1 wherein the owner of the source web page is party to a contract providing for receipt of a commission based on the level of sales made through activation of the URL as a result of a transaction involving the commerce object displayed on the source web page.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 6.

Loshin IPRs - Commission

- Loshin explicitly discloses the use of commissions.
- Even under Patent Owner's own definition of commission, Loshin discloses this limitation.
- Commission may flow to outsource provider (InfoHaus) merchant/host or vice versa.

The only extra charges for selling on the InfoHaus are a monthly charge of \$1.50 per megabyte of data stored on the InfoHaus server, and an 8% "commission" on approved purchases. These charges are in addition to the standard First Virtual charges of \$0.29 per transaction and 2% of gross sales.

Source: HQ Scans of Loshin (IPR2018-01008, Ex. 1024), Fig. 7-1 (excerpted).

ansacting a piece of business or performing a service; esp: a percentage of the money received from a total paid to the agent responsible for business 7: an act of entrusting or giving authority — in commis-

Source: Definition of "Commission" (Ex. 2033), excerpt.

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS





DEPENDENT CLAIMS

Commission limitations



Catalog-searching limitations

Matching-URL limitations

Multi-product searching limitations

Loshin IPR – Hierarchical-page electronic catalog limitations

correlated with the source web page is an electronic catalog listing a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the electronic catalog.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 7.

second web site, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the second web site, each pertaining to a subset of the product offerings in the catalog.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 3.

of an outsource provider, and wherein the composite page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the catalog.

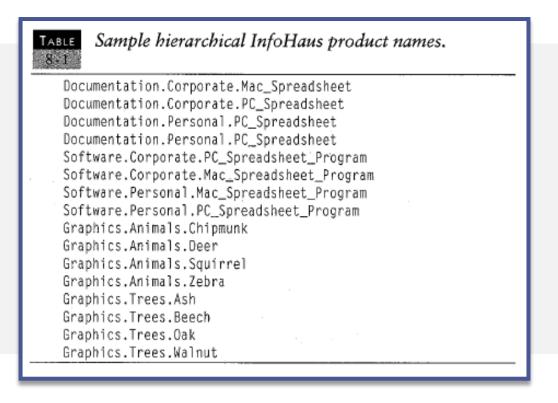
Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 4.

Loshin IPRs – Hierarchical Catalog

Loshin discloses a hierarchical catalog as multiple, nesting web pages.

• Step 2: Give your product a name. Product names appear on the InfoHaus as filenames under ftp, or as links on the InfoHaus Web pages. These names are case-sensitive, and may be made up of letters or numbers (A-Z, a-z, 0-9). The only valid punctuation marks are periods (".") and underscores ("_"). Underscores can be used to separate words in a product name for clarity.

Periods can be used to separate hierarchical parts of the product name. For example, Table 8-1 shows a set of product names that might be used by a merchant selling three types of items ("Software," "Graphics," and "Documentation"). These product names are sorted alphabetically by within each hierarchical level, and make it easier for consumers to find what they are looking for.



Source: Loshin (Ex. 1013), 230.

Loshin IPRs – Hierarchical Catalog

InfoHaus elaborates more on the hierarchical catalog disclosed in Loshin.



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To create additional levels of sub-pages, add additional "level names" and periods to your products.

Example: To make the "articles" page link to sub-pages with "politics" and "travel" products on them, name your products like this:

articles.politics.Congress_96
articles.politics.Senate_96
articles.travel.Paris_Highlights
articles.travel.Themepark_Bargains
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Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS





DEPENDENT CLAIMS

- Commission limitations
- Hierarchical-page electronic catalog limitations
- Catalog-searching limitations
- Matching-URL limitations
 - Multi-product searching limitations

Loshin IPR – Catalog Searching Limitations

8. The method of claim 7 further comprising, automatically with the computer system, (i) using search parameters inputted at the visitor computing device to search for specific products within the catalog, and (ii) serving to the visitor computing device additional instructions directing the visitor computing device to display the results of the search.

Source: '876 patent (IPR2018-01008, Ex. 1001), Cl. 8.

4. The method of claim 3 further comprising, automatically with the server computer, (i) accepting search parameters inputted through the browser of the visitor computer, (ii) using said parameters to search for specific products within the catalog, and (ii) serving the results for display using the browser of the visitor computer.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 4.

5. The method of claim 4 further comprising, automatically with the computer system, (i) accepting search parameters inputted at the visitor computing device, (ii) using said parameters to search for specific products within the catalog, and (iii) serving the results for display on the visitor computing device.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 5.

Loshin IPRs – Catalog Searching

Seller: Pete Loshin

Date: 01 JAN 96

- Loshin discloses searching of its electronic catalog
- The claims do not require catalog searching via the web page
- The catalog exists on InfoHaus and the email search specifically targets a seller's goods on InfoHaus

Criterion	Description			
Seller:	Name of InfoHaus merchant.			
Keyword:	A keyword designated by the merchant to describe the product.			
Topic:	A descriptive term for the merchant/product.			
Date:	To retrieve items only stocked since the date indicated, using th "DD MMM YY" where day and year are numbers, and the month three-letter abbreviation.			

This search would return any items sold by the merchant "Pete Loshin" and checked into the InfoHaus for sale since January 1, 1996. In response you would receive a listing of items in the InfoHaus that meet the criteria you set in your initial search message. For example, you might see something like this:

Your search of First Virtual's Infohaus(TM) has found the following seller/info-item pairs:

Pete_Loshin Part1.First_Virtual_Book Pete_Loshin Part2.First_Virtual_Book Pete_Loshin Part3.First_Virtual_Book Pete_Loshin Part4.First_Virtual_Book

This is essentially a short listing of the files that meet your criteria. After this list, very basic information provided by the merchant is included for each item, including a price and a very short description of the item. If you want to know more about the items returned by your search, move on to the next step, which is to send a message to the address:

Source: Loshin (Ex. 1013), 210.

Current Status | Loshin IPR

The Board took up the three Loshin petitions on all grounds

Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS





DEPENDENT CLAIMS

Commission limitations

Hierarchical-page electronic catalog limitations

Catalog-searching limitations

Matching-URL limitations

Multi-product searching limitations

Loshin IPR – Matching URL

2. The method of claim 1 wherein the visually perceptible elements comprise data defining a set composed of a plurality of URLs, each of which URLs appear on at least some of the web pages of the first website, and which URLs point to respective web pages of the first website.

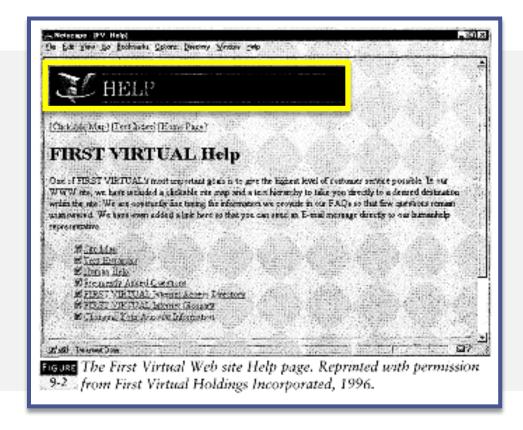
Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 2.

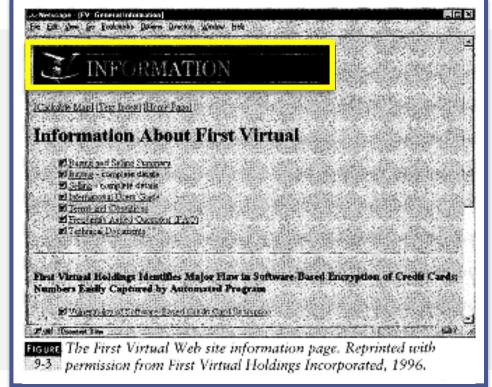
3. The method of claim 1 wherein at least some of the visually perceptible elements are each associated with respective of a plurality of URLs, each of which URLs also are present on at least some of the web pages of the host website, and which URLs point to respective web pages of the host website.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 3.

Loshin IPR - Matching URL

Loshin teaches the use of headers for navigating between pages.



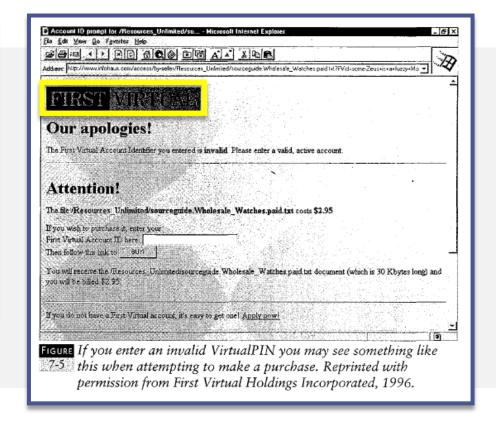


Source: Loshin (Ex. 1013), 252, 253.

Loshin IPR - Matching URL

 Loshin discusses the use of HTML to customize webpages, including inclusion of multiple URLs in an HTML document.

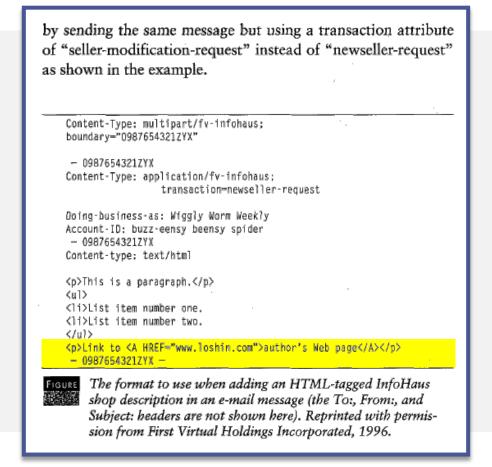
Information transmitted from servers to browsers comes from Web documents stored on the server that have been specially tagged using Hypertext Markup Language (HTML) tags that define the different functional pieces of each document. As mentioned earlier, tags allow different parts of a document to behave differently; most important are the abilities of text and graphics to behave as pointers to other parts of a document, other documents and resources, and especially resources on other Web servers. HTML documents consist of plain text (ASCII) files and may point to graphics files, other types of multimedia files (for example, sound or full-motion video files) stored in standard formats, or other network resources (URLs).



Source: Loshin (Ex. 1013), 15, 198.

Loshin IPR - Matching URL

Loshin provides HTML examples of utilizing links in HTML code to the merchant's web page.



Source: Loshin (Ex. 1013), 239.

Current Status | Loshin IPR

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Patent Owner only disputes certain aspects of the claims as not disclosed by Loshin

INDEPENDENT CLAIMS





DEPENDENT CLAIMS

Commission limitations

Hierarchical-page electronic catalog limitations

Catalog-searching limitations

Matching-URL limitations

Multi-product searching limitations

Loshin IPR – Multiple Product Search Limitations

5. The method of claim 1 wherein the commerce object associated with the URL that has been activated comprises information defining a multitude of products of at least the merchant, and further comprising, automatically with the server computer, (i) accepting search parameters inputted through the browser of the visitor computer, (ii) using said parameters to search for specific products within the plurality of products, and (iii) serving the results for display using the browser of the visitor computer.

Source: '825 patent (IPR2018-01010, Ex. 1001), Cl. 5.

4. The method of claim 1 wherein the commerce object associated with the URL that has been activated comprises information defining an electronic catalog having a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the catalog.

Source: '228 patent (IPR2018-01009, Ex. 1001), Cl. 4.

Loshin IPRs – Multiple Product Search

- Loshin discloses searching of its electronic catalog.
- The claims do not require catalog searching via the web page.
- The catalog exists on InfoHaus and the email search specifically targets a seller's goods on InfoHaus.

Seller:	Name of Infal Invancement				
	Name of InfoHaus merchant.				
Keyword:	A keyword designated by the merchant to describe the product.				
Topic:	A descriptive term for the merchant/product.				
Date:	To retrieve items only stocked since the date indicated, using the for "DD MMM YY" where day and year are numbers, and the month is a three-letter abbreviation.				

This search would return any items sold by the merchant "Pete Loshin" and checked into the InfoHaus for sale since January 1, 1996. In response you would receive a listing of items in the InfoHaus that meet the criteria you set in your initial search message. For example, you might see something like this:

Your search of First Virtual's Infohaus(TM) has found the following seller/info-item pairs:

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This is essentially a short listing of the files that meet your criteria. After this list, very basic information provided by the merchant is included for each item, including a price and a very short description of the item. If you want to know more about the items returned by your search, move on to the next step, which is to send a message to the address:

Source: Loshin (Ex. 1013), 210.

Seller: Pete Loshin

Date: 01 JAN 96

Procedural Posture – Motivation to Combine

• Patent Owner did not challenge the motivation to combine for any of the § 103(a) combinations.

Reference(s)	Basis	'876 Patent Claims Challenged	'228 Patent Claims Challenged	'825 Patent Claims Challenged
Digital River Publications	§ 103(a)	1-5, 7, 8, 11-15, 17, and 18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, 11-18
Loshin and the InfoHaus Documents	§ 103(a)	1, 7, 11, 16, and 17	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Loshin and Moore	§ 103(a)	1-5, 7, 8, 11-15, and 17-18	1, 3-5, 7-9, 11-13, 15, and 16	1-4, 8, 11-14, 17, and 18
Moore and Arnold	§ 103(a)	1, 7, 11, and 17	1, 4, 9, and 12	1, 3, 11, and 13
Moore and the Digital River Publications	§ 103(a)	1-5, 7, 8, 11-15, 17, and 18	1, 3-5, 7-9, 11-13, 15, and 16	1-8, 11-18

Motivation to Combine

- Patent Owner did not challenge the motivation to combine for any of the § 103(a) combinations.
- Dr. Shamos testified that Loshin and Moore both describe outsourced ecommerce systems, and provide the same functionality – Shamos Decl. (IPR2018-01008, Ex. 1002), ¶¶169-171.
- Patent Owner admits Loshin and InfoHaus describe the same system.

Prelim. Resp. 29–32. According to Patent Owner, "[g]iven that Loshin and the 'InfoHaus Documents' both describe the same system, namely the InfoHaus system offered by First Virtual, the Board should not find it surprising that they would have the same deficiencies." *Id.* at 29–30. Patent Owner's argument is persuasive.

CERTIFICATE OF SERVICE

I certify that a copy of the Petitioners' Demonstrative Exhibits is being served by electronic mail on the following counsel of record for the Patent Owner and

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Dated: July 23, 2019

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