Infringement of U.S. Patent No. 6,289,319 by Learning Resources

The following analysis shows how each element of Claim 1. Additionally, to the extent that some claim elements might later be deemed missing under a literal infringement analysis (e.g., due to future claim construction), Landmark alternatively demonstrates the presence of equivalents for those elements under the doctrine of equivalents. Further, Landmark expects that these charts will be updated to reflect facts and information obtained during discovery.

<table>
<thead>
<tr>
<th>U.S. PATENT NO. 6,289,319</th>
<th>INFRINGEMENT BY REPRESENTATIVE ACCUSED INSTRUMENTALITY</th>
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</thead>
<tbody>
<tr>
<td>Claim 1</td>
<td>Learning Resources’ website (<a href="https://www.learningresources.com/">https://www.learningresources.com/</a>, hosted at IP address 52.24.145.159 as of the preparation of these Contentions), together with the one or more servers that host it, and the representative terminal that accesses it, comprises an automatic data processing system for processing business and financial transactions between entities from remote sites, including the elements below. The representative terminal discussed below accesses the Learning Resources website through an Opera browser version 43.0, executing the HTML and JavaScript codes for Learning Resources’ website. Upon information and belief, other remote terminals operate in the same manner to infringe as charted for the representative terminal. These codes are retrieved from, and controlled by, one or more “Apache” servers used in conjunction with Learning Resources’ website.</td>
</tr>
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</table>

Learning Resources’ website exists for the purpose of engaging in transactions with users who access it and place orders thereon from remote sites. The representative terminal is remote from the one or more servers on which Learning Resources’ website is hosted, and it is accessed for the purpose of placing orders for products. The representative terminal is believed to share the same critical characteristics as the terminals used by many of Learning Resources’ customers who are induced by Learning Resources to infringe, as well as the terminals Learning Resources uses internally to directly infringe by designing, testing, accessing, and using the Learning Resources website.

a central processor programmed and connected to process a variety of inquiries and orders transmitted from said remote sites;

Learning Resources uses one or more “Apache” servers, here the claimed “central processor,” to host its website at https://www.learningresources.com/ (IP address 52.24.145.159, as of the preparation of these Contentions). See supra. Learning Resources’ website is programmed with HTML and JavaScript codes to process a variety of inquiries and orders transmitted from the representative terminal, located remotely.
The representative terminal, remote from the Learning Resources server, transmits inquiries about various products to the Learning Resources website, as well as orders for those products.
Landmark contends that the representative terminal is representative of the computers and other devices (such as laptops, tablets, and smartphones) used by Learning Resources’ customers, as well as by Learning Resources itself, which also transmit inquiries and orders to the Learning Resources website and the one or more servers that host it.

The one or more servers hosting Learning Resources’ website, here the claimed “central processor,” include(s) the following elements:
| means for receiving information about said transactions from said remote sites; | Learning Resources’ website and the one or more servers that host it receive information about transactions from remote sites via a modem communicating through the internet, here the claimed “means for receiving.” See supra (showing that Learning Resources’ website is hosted by servers connected to the internet at IP address 52.24.145.159).

Alternatively, and to the extent that the claimed “means for receiving” is construed narrowly, Landmark contends that Learning Resources’ website and the one or more servers that host it employ the claimed “means for receiving” through the doctrine of equivalents. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations. Interim physical layers and protocols (i.e., 3G, 4G, LTE and WiFi) which reach the internet are equivalents of communication through modems connected to analog telephone lines. |
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<tbody>
<tr>
<td>means for retrievably storing said information;</td>
<td>Learning Resources’ website and the one or more servers that host it retrievably store information about transactions in RAM Memory and on hard disk drives. Learning Resources’ website retrievably stores records of user account activity and orders in its “Account” sections. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations. See supra.</td>
</tr>
</tbody>
</table>
Learning Resources’ website also retrievably stores information relating to user-selected products in its Cart functionality:
My Cart

Add $23.02 more to your cart and receive free shipping!

<table>
<thead>
<tr>
<th>product</th>
<th>qty</th>
<th>price each</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaker Creature™ Liquid Reactor Super Lab LER 3913</td>
<td>-</td>
<td>$24.00</td>
<td>$24.00</td>
</tr>
<tr>
<td>Beaker Creature™ Magnification Chamber LER 3814</td>
<td>-</td>
<td>$16.99</td>
<td>$16.99</td>
</tr>
</tbody>
</table>

Promotion or Coupon Code: Learn more

Shipping to: State Province

Estimated Tax: $0.00
Estimated Shipping: $1.95
Estimated Total: $50.93

The representative terminal is an HP Compaq 6200 Pro Desktop PC (here, the claimed “terminal”) uses an Intel Pentium G620 Dual-Core Processor (the claimed “data processor”).

The representative terminal is equipped with the Windows 7 operating system and Opera browser programs, which support the Javascript and HTML of Learning Resources’ website. The sample of code from Learning Resources’ website below shows that Javascripts and HTML (collectively, the claimed “operational sequencing lists of program instructions”) are sent to the representative terminal.
terminal whenever the site is accessed by its Opera browser. The representative terminal processes the scripts locally in order to use and display the Learning Resources website.

Sample of Javascript and HTML downloaded to representative terminal from:

means for remotely linking said terminal to said central processor and for transmitting data back and forth between said central processor and said terminal;

The representative terminal uses a “ubee” UBC1302-BA00 modem communicating through the internet, here the “means for remotely linking,” to transmit data back and forth between the computer and Learning Resources’ website and one or more servers. The representative terminal receives data when it accesses the website, and sends data to the one or more Learning Resources servers when the user places an order, makes a search query or menu selection, or logs into his/her account.

Alternatively, and to the extent that the claimed “means for remotely linking” is construed narrowly, Landmark contends that the representative terminal employs the claimed “means for remotely linking” through the doctrine of equivalents. Interim physical layers and protocols (i.e., 3G, 4G, LTE and WiFi) which reach the internet are equivalents of communication through modems connected to analog telephone lines. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.

said terminal further comprising means for dispensing information and services for at least one of said entities including:

The representative terminal dispenses information and services from Learning Resources’ website on behalf of at least one user according to the following elements:
a video screen; The representative terminal uses an HP 2010 monitor, here the claimed “video screen.” Landmark contends that its video screen is representative of those employed on the terminals that Learning Resources uses internally, as well as those used by Learning Resources’ customers and Learning Resources internally. Indeed, Learning Resources’ website is formatted, through its code, to render on video screens of various sizes, such as on iPads and iPhones. The sample of code from Learning Resources’ website below shows that Learning Resources’ website renders on video screens of various sizes:

```html
@media only screen and (min-device-width: 320px) and (max-device-width: 480px) and (-webkit-min-device-pixel-ratio: 2) {
  .lr-brand p{
    margin-bottom: 30px;
  }

  .lr-brand-sm img{
    width:auto;
    display: block;
    margin: 25px auto 0 auto;
  }

  .lr-brand-cta{
    margin:0 auto;
    display:inline;
  }
}
```

Alternatively, and to the extent that the claimed “video screen” is construed narrowly, Landmark contends that the representative terminal employs the claimed “video screen” through the doctrine of equivalents. LCD, LED, and OLED screens are such equivalents. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.

<table>
<thead>
<tr>
<th>means for holding operational data including programming, informing, and inquiring sequences of data;</th>
<th>The representative terminal has an HP 160GB 10K rpm SATA 3.0Gb/s 2.5” Hard Disk Drive (here the “means for holding”), which holds the Windows 7 operating system, as well as the Opera browser and the HTML and Javascript provided by the Learning Resources website (collectively, the “programming, informing, and inquiring sequences of data”):</th>
</tr>
</thead>
</table>

**QuickSpecs**

**Data Storage Drives**

- HP 160GB 10K rpm SATA 3.0Gb/s 2.5” Hard Disk Drive
- Includes 3.5” adapter
Alternatively, and to the extent that the claimed “means for holding” is construed narrowly, Landmark contends that the representative terminal employs the claimed “means for holding” through the doctrine of equivalents. Hard disk drives and solid-state drives are equivalent to read/write optical disks or video disks. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.

Learning Resources’ website informs users how to create accounts. Users are instructed “The password cannot be less than 7 characters.” and likewise instructs to reenter or correct data as needed.
Learning Resources’ website also provides inquiring sequences during product selection, which said operational data including programming, informing, and inquiring sequences of data are held by terminal.
When a user selects a product characteristic via search, questions are fetched: namely, additional filters as well as in certain cases add to cart.

Likewise, an additional inquiring sequences are fetched during Checkout on the Learning Resources website when the website asks the user for his/her billing address, shipping
information, credit card number, etc. Further, an additional inquiring sequence is fetched in the event that a credit card is declined when an order is placed.

The terminal fetches an additional inquiring sequence from Learning Resources’ website and the one or more servers that host it when the website asks the user to refine by category:

https://www.learningresources.com/search.do?query=botley

And, further, the terminal fetches an additional inquiring sequence from Learning Resources’ website and the one or more servers that host it when the website prompts the user to enter his/her credit card information in response to his/her credit card being declined:
means for manually entering information;

The representative terminal has an HP USB Standard Keyboard and HP USB Optical Mouse for manually entering information (here, collectively, the “means for manually entering information”):

**QuickSpecs**  
**HP Compaq 6200 Pro Series**

**Input/Output Devices**
- HP PS/2 Standard Keyboard
- HP USB Standard Keyboard
- HP USB Keyboard with USB ports
- HP USB Smart Card (CCID) Keyboard
- HP USB Mini Keyboard
- HP USB and PS/2 Washable Keyboard

- HP PS/2 Optical Mouse
- HP USB Optical Mouse
- HP USB Laser Mouse
- HP USB and PS/2 Washable Mouse

Use of Learning Resources’ website requires the entry of information at the representative terminal. The sample of code below shows that Learning Resources’ website handles “Fields” where information typically entered by the mouse, as well as “Keypress” functions for accepting information from a keyboard:
Sample Code from:

More generally, Learning Resources’ website requires the manual entry of information at the representative terminal when the user logs into his/her account and when the user orders a product:
Alternatively, and to the extent that the claimed “means for manually entering information” is construed narrowly, Landmark contends that the representative terminal employs the claimed “means for manually entering information” through the doctrine of equivalents. A keyboard and mouse are equivalent to a touch pad. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.
<table>
<thead>
<tr>
<th>means for storing information, inquiries and orders for said transactions entered by one of said entities via said means for manually entering information, and data received through and from said central processor;</th>
<th>The representative terminal stores information, inquiries and orders entered by the user via the keyboard and/or mouse in its HP 1 GB DIMM used for DDR3 SDRAM, its HP 160GB 10K rpm SATA 3.0Gb/s 2.5” Hard Disk Drive (collectively, the “means for storing”) and internal data buffering. The representative terminal also stores some of the data received through and from Learning Resources’ website and the one or more servers that host it (here, again, the “central processor”) in its RAM and some in its hard disk drive.</th>
</tr>
</thead>
<tbody>
<tr>
<td>on-line means for transmitting said information, inquiries, and orders to said central processor;</td>
<td>The representative terminal uses an “ubee” UBC1302-BA00 modem communicating through the internet, here the “on-line means for transmitting,” to transmit information, inquiries, and orders to Learning Resources’ website and the one or more servers that host it (the “central processor”). Use of Learning Resources’ website to order a product requires that the representative terminal transmit information, inquiries and orders to Learning Resources’ website and the one or more servers that host it, when the user sends his/her responses to Learning Resources website inquiries regarding the type or quantity of product to be ordered, and sends his/her credit card information and order:</td>
</tr>
</tbody>
</table>
Alternatively, and to the extent that the claimed “on-line means for transmitting” is construed narrowly, Landmark contends that the representative terminal employs the claimed “on-line means for transmitting” through the doctrine of equivalents. Interim physical layers and protocols (i.e., 3G, 4G, LTE and WiFi) which reach the internet are equivalents of communication through modems connected to analog telephone lines. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.
on-line means for receiving data comprising operator-selected information and orders from said central processor via said linking means;

The representative terminal uses a “ubee” UBC1302-BA00 modem communicating through the internet, here the “on-line means for receiving,” to receive user-selected information and orders from the Learning Resources website and server (here, the “central processor”). The user accessing the Learning Resources website through the representative terminal may select information of various kinds, and orders by placing an order for a product or by logging into the Learning Resources website’s “Login” section:

https://www.learningresources.com/search.do?query=botley
Alternatively, and to the extent that the claimed “on-line means for receiving” is construed narrowly, Landmark contends that the representative terminal employs the claimed “on-line means for receiving” through the doctrine of equivalents. Interim physical layers and protocols (i.e., 3G, 4G, LTE and WiFi) which reach the internet are equivalents of communication through modems connected to analog telephone lines. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.

| Means for outputting said informing and inquiring sequences on said video screen in accordance with preset routines and in response to data entered through said means for entering information; | The representative terminal outputs the informing and inquiring sequences provided to it by Learning Resources’ website and one or more servers on its video screen in accordance with HTML and Javascript (here “preset routines”) that render the Learning Resources website into the corresponding monitor frame. See supra (showing sample of HTML and Javascript code from Learning Resources’ website that renders the site on video screens of various sizes). Learning Resources’ website is output on the representative terminal in response to user selections made through the keyboard or mouse, the user’s decision to log into his/her account, and other user-entered data tracked by Learning Resources’ cookies, as described below.

Alternatively, and to the extent that the claimed means of this element is construed narrowly, Landmark contends that the representative terminal employs the claimed language through the doctrine of equivalents. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations. |
means for controlling said means for storing, means for outputting, and means for transmitting, including means for fetching additional inquiring sequences in response to a plurality of said data entered through said means for entering and in response to information received from said central processor;

The architecture of the representative terminal, the HP Compaq 6200 Pro Desktop PC, is such that its DMA functionality is achieved in a mastered bus system separate from its Intel Pentium G620 Dual-Core Processor’s front-side bus. The representative terminal’s chipset is structured according to the “PCI Express” bus architecture standard and “SMBus” specification:

**QuickSpecs**

**HP Compaq 6200 Pro**

**Technical Specifications - Communications**

<table>
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<tr>
<th>Specification</th>
<th>Details</th>
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<td>Bus architecture</td>
<td>PCI Express and SMBus</td>
</tr>
<tr>
<td>System Interface</td>
<td>PCI Express x1</td>
</tr>
<tr>
<td>Controller</td>
<td>Intel WG82574L Gigabit Ethernet Controller</td>
</tr>
<tr>
<td>Memory</td>
<td>Integrated Dual 48K configurable transmit receive FIFO Buffers</td>
</tr>
<tr>
<td>Data rates supported</td>
<td>10/100/1000 Mbps</td>
</tr>
<tr>
<td>Compliance</td>
<td>IEEE 802.1P, 802.1Q, 802.2, 802.3, 802.3AB and 802.3u compliant, 802.3x flow</td>
</tr>
<tr>
<td>Bus architecture</td>
<td>PCI-E 1.0a</td>
</tr>
<tr>
<td>Data path width</td>
<td>X1, 250 MB/s, Bi-directional interface</td>
</tr>
<tr>
<td>Data transfer mode</td>
<td>Bus-master DMA</td>
</tr>
</tbody>
</table>


Here, the processor, along with its architecture, is the claimed “means for controlling.” This architecture achieves a separation between the computer’s performance-critical capabilities handled by the CPU and other, less performance-critical capabilities such as communication (input/output or “IO”), including the DMA functionality. The representative terminal is thereby able to control the RAM and hard disk drive (“means for storing”), the monitor displaying the website presentation (“means for outputting”), and the modem communicating through the internet (“means for transmitting”) concurrently. Accessing the Learning Resources website requires concurrent use of these components: when the representative terminal accesses the
Learning Resources website, it receives data via its modem, which is stored in RAM Memory and in the hard disk drive, compiled and output on the monitor.

Further, when the representative terminal uses the Learning Resources website, it fetches through its modem communicating through the internet (here, the “means for fetching”) additional questions from the Learning Resources website in response to a plurality of data entered by the user on the keyboard and mouse in order to search said textual information and graphical information through said selected entry path means and for fetching data as a function of other data and in response to information received from Learning Resources’ website and one or more servers:

When the user forward chains to a product from the Learning Resources website via search or hierarchically linked groups, here the “Botley-The-Coding-Robot” he may enter a plurality of data via the keyboard and mouse, selecting the “quantity”, and whether to “Add to Cart”
In response to this plurality of data, and to information received from the central processor–here, that the item has been added to your Cart at the Learning Resources website–an additional question is fetched: namely, Billing address, Shipping address, etc..

The code from Learning Resources’ website shows that, in the process, the terminal fetches data from the website via the bus dedicated to relatively less performance-critical I/O functions, while rendering that data at speed by compiling it via another bus dedicated to capabilities handled by the CPU.
Likewise, an additional inquiring sequence is fetched during Checkout on the Learning Resources website when the website asks the user for his/her credit card. Further, an additional inquiring sequence is fetched in the event that the credit cards are in error when an order is placed.

The user selects a product to order:

The user selects a product:
The terminal fetches additional inquiring sequences from Learning Resources’ website and the one or more servers that host it when the website asks the user to select specific item quantity and based on those selections the terminal fetches additional data:

The terminal fetches an additional inquiring sequence from Learning Resources’ website and the one or more servers that host it when the website asks the user to enter a valid credit card number during Checkout:

And, further, the computer fetches an additional inquiring sequence from Learning Resources’ website and the one or more servers that host it when the website prompts the user to re-enter his/her credit card information in response to his/her credit card being declined:
Alternatively, and to the extent that the claimed “means for controlling” is construed narrowly, Landmark contends that the representative terminal employs the claimed “means for controlling” through the doctrine of equivalents. DMA functionality achieved along a bus other than the front-side bus is equivalent to a DMA unit placed along a bus other than the front-side bus. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.

| said informing sequences including directions for operating said terminal, and for presenting interrelated segments of said operational data describing a plurality of transaction operations | The representative terminal accessing Learning Resources’ website and the one or more servers that host it downloads directions for its operation when the user attempts to login to his/her account, which is an example of the said informing sequences including directions for operating said terminal, and for presenting interrelated segments of said operational data. Learning Resources’ website informs users how to create accounts. Learning Resources’ website informs users how to input email addresses. Users are instructed “Password can not be less than 7 characters” |
Additionally, the representative terminal is provided directions for presenting a plurality of transaction operations by Learning Resources’ website and the one or more servers that host it, i.e., menu options with directions that describe a plurality of transaction operations. Users are
presented a plurality of options for shopping for “products” and directed to search subsets via “filters”

https://www.learningresources.com/search.do?query=botley

Similarly, users are presented a plurality of options for shopping for products and directed to select “Subject”, “Category”, “Search”, etc.
said programming sequences including means for interactively controlling the operation of said video screen, data receiving and transmitting means; and for selectively retrieving said data from said means for storing;

| The representative terminal accessing Learning Resources’ website and the one or more servers that host it, via the architecture described supra, is able to interactively control the operation of said video screen and modem, and selectively retrieve data from the hard disk drive. The representative terminal employs software, namely the Opera Browser for accessing the HTML and Javascript at Learning Resources’ website (collectively, the “means for interactively controlling”), which interactively control the operation of the computer’s video screen and the modem when accessing Learning Resources’ website and the one or more servers that host it, and selectively retrieve data from the computer’s hard disk drive. When the computer’s browser accesses Learning Resources’ website and the one or more servers that host it, they cause the browser to place a “cookie” on the computer, which records the user’s browsing activity on Learning Resources’ website. |
See generally https://en.wikipedia.org/wiki/HTTP_cookie

Learning Resources’ cookies personalize the user experience by allowing users to store items in their Shopping Cart. The cookie is retrieved from the hard disk during later visits and this data is then returned to the Learning Resources website, allowing it to recognize you automatically whenever you visit the site so that they can personalize user experience. Thus, the representative terminal’s browser and the cookies placed on the computer by Learning Resources’ website and the one or more servers that host it, interactively control the user’s experience of the Learning Resources website, allowing certain features (the Shopping Cart and personalized information) to be transmitted to the representative terminal and display on its video screen.

said means for storing comprising means for retaining said operational sequencing list and means responsive to the status of the various means for controlling their operation;

<table>
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<th>said central processor further including: means responsive to data received from one of said terminals for immediately transmitting selected stored information to said terminal; and means responsive to an order received from a terminal for updating data in said means for storing; whereby said system can be used by said entities, each using one of said terminals to exchange information, and to respond to inquiries and orders instantaneously and over a period of time.</th>
</tr>
</thead>
</table>
| Learning Resources’ website and the one or more servers that host it respond to data received from the representative terminal by transmitting information selected from storage back to the computer. In response to user selection of products or links on Learning Resources’ website, or in response to text entered into the search field on Learning Resources’ website, Learning Resources’ website and one or more servers transmit selected information from storage back to the computer (sending further information on a product, a linked webpage, or search results back to the computer). Likewise, when Learning Resources’ website and one or more servers receive data from the computer’s “cookie,” they respond by transmitting the Shopping Cart functionality in a personalized way (i.e., with the user-selected products placed therein) or by transmitting personalized product recommendations.

When users place orders on Learning Resources’ website, the user’s order history is updated in his/her “Login” section, which is stored on one or more servers.

The representative terminal retains the HTML and Javascript from Learning Resources website’s in RAM memory and on its hard disk drive, and also retains the Windows 7 operating system and Opera browser on its hard disk drive. Both the RAM memory and the hard disk drive are responsive to the representative terminal’s CPU and Opera browser.

Alternatively, and to the extent that the claimed means of this element is construed narrowly, Landmark contends that the representative terminal employs the claimed language through the doctrine of equivalents. The Accused Instrumentality is capable of achieving substantially similar results using insubstantially different operations.
The system described above can be utilized by users of the representative terminal to exchange information with Learning Resources’ website and the one or more servers that host it, and respond to inquiries and orders instantaneously and over a period of time.

Alternatively, and to the extent that the claimed means of this element is construed narrowly, Landmark contends that the representative terminal employs the claimed language through the doctrine of equivalents. The Accused Instrumentality is capable of achieving substantially similar results using in substantially different operations.