

Interface Redesign: Thomson.com

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Table of Contents

Executive Summary	3
Analysis of Current Interface	5
Interface elements	5
Strengths	6
Limitations	6
Redesigned Interface Wire frames.....	8
Home page.....	8
Sub page.....	9
Analysis of Redesigned Interface	10
Implementation Options	12
Appendix A.....	13
Figure 1	13
Figures 2 & 3	14

Executive Summary

INP Associates has been contracted by Thomson.com to create a new interface layout for their website, <http://www.thomson.com>. This site consists of a number of sub-sites, representing each major branch of the corporation. A frequent problem reported by users involved difficulty navigating from one section of the site to another due to inconsistencies in the design of global navigation buttons. There are two sets of global navigation buttons, one is hidden in a drop-down menu on all pages except the home page. Another problem in some areas of the site is the excessive length of many sub pages. This interface redesign resolves the navigational issues as well as some other design issues.

There are four sections in this report, including an appendix with screenshots of the current home page and sub page design. Sections are:

- **Analysis of Current Interface:** the component elements of the current interface are identified and strengths and limitations of the design documented.
- **Redesigned Interface Wireframes:** digital wireframes of the redesigned home page and a sub page show how interface elements will be arranged.
- **Analysis of Redesigned Interface:** a discussion of the proposed interface that identifies changes and how they improve current design limitations.
- **Implementation Options:** three possible approaches to implementation of the redesigned interface and their respective advantages and disadvantages are discussed and the recommended approach is identified.

Advantages of the redesigned interface over the existing interface include the following enhancements:

- All global navigation buttons are easily visible accessible on every page.
- All global navigation buttons have a more consistent look.
- The search function has been simplified and moved to a better location.
- Extra white space has been removed from the home page logo and masthead areas.
- Balance and alignment issues have been resolved with the left side (logo and sidebar) of the home page.
- Length of the central content area of sub pages is shortened, reducing the need to scroll.
- On the main page, a right sidebar is created and the miscellaneous items currently located in the left sidebar are moved to the right sidebar.
- Cross-links currently located in a horizontal bar below sub page mastheads have been moved to a "related links" area on the right sidebar.
- The footer has been redesigned so that all navigation items are placed in one grouping instead of two misaligned groups.

- Breadcrumbs navigation on sub pages has been extended to include the title of the current page.

Analysis of Current Interface

The Thomson.com interface (shown in Appendix A) uses fixed-width elements for all items and is compatible for viewing at 800 x 600. When viewing at 1024 x 768, there is a quite a bit of white space on the right side of the pages. The home page uses a subdued blue and grey color scheme with small amounts of contrasting orange and very small areas of other colors related to color-coding. Sub pages continue this color scheme but add a secondary color that color-codes the different areas of the site. Most sub pages also include some additional small graphics. Imagery is not excessive, and at an average page weight of about 70k-80k, these pages do not take an overly long time to download, about 20 seconds on a 56k modem (calculations obtained by testing pages at Dr. Watson -- <http://watson.addy.com>). However, many small navigational buttons use graphically rendered text instead of html text, which would decrease the page weight even further.

(There are many areas of this large site that bear the Thomson logo but have been designed under the direction of different business units and they are not considered in this analysis.)

Interface elements

The Thomson.com interface includes the elements below, most of which will be incorporated into the redesigned interface in some form.

- Logo
- Tagline
- Global navigation (rendered graphics):
 - Links to general corporate content areas (at top of masthead)
 - Links to corporate divisions offering products and services:
 - Home page: vertical menu to right of tagline
 - Sub-pages: drop-down menu to the right of other global navigation items at top of page
- JavaScript generated masthead images (home page only)
- Search box, scoped search and advanced search
- Left side bar:
 - Home page: press releases, investor relations, careers
 - Sub pages: Local and lower-level navigation
- Legal links: copyright, terms of use, privacy policy
- Footer: copyright, terms of use and privacy statement at the bottom of the left side bar and global navigation links at the bottom center of each page
- Scoped notes about major subsections of the site (central content area of home page only)
- Right side bar (sub pages only) containing information and links appropriate to the page including featured products, contact information, catalog items, etc.
- Bar with navigation to cross-linked pages under masthead (sub pages only).
- Breadcrumbs navigation trail (sub-pages only)

- Small horizontal images appear above content areas in the right sidebar of sub pages.

Strengths

This website generally adheres to interface design principles and Gestalt rules of visual perception. A primary strength is that it is consistent in its use of many design elements. Navigation items appear in the same locations on most pages, fonts and color schemes remain consistent throughout the site and most pages are organized in a similar design with page header, left and right sidebars and central content area. Color-coding is used effectively as a way to organize the subsections of the site.

The Gestalt principals of proximity and similarity are used to link the set of global navigation buttons that link to general corporate content areas and local navigation menus on sub-pages ("about us", "press releases," etc.). These global navigation buttons are placed at the top of each page and are rendered in the same colors on most major areas of the site. Local navigation menus are on the left sidebars of the sub pages in most areas of the site and are rendered in gray with a contrasting color that corresponds to the color scheme of that sub-area of the site.

Most pages exhibit a simple style with a subdued color scheme punctuated by a limited number of graphics that provide some contrast. Logo and masthead span the top of most pages and sub pages have local and lower-level navigation on the left sidebar, a central content area and featured links on a right sidebar. Most elements are left aligned within the section of the page they are placed and indenting is used to indicate items of subsidiary importance, such as lower level navigation. On the home page, the scoped notes in the central content area of the page are placed so that the headings of the items are top-aligned no matter what the length of the item is. Overall, white space is used effectively to define page elements and line lengths are not overly long.

Limitations

One of the primary limitations in the current interface is that the global navigation buttons that link to corporate divisions are not placed in a consistent location on all of the pages. On the home page, they are placed in a vertical menu to the right of the tagline. Moving the mouse over them activates JavaScript code that changes the accompanying image and headline. These global navigation items seem to disappear on sub-pages, where the only way to access them is via a drop-down menu on the far right of the top global navigation bar at the top labeled "Explore Thomson." Having to select from a drop-down menu impedes quick navigation between sub-sections of the site.

The home page and sub pages have a generally similar look and use similar elements such as a logo, masthead, left side bar. There are a few significant design differences on the home page that create an inconsistency between it and the other pages. Since it

is not dramatically different (for example, a splash page with no content), it seems appropriate to try to make it more similar to the other pages.

The masthead and left sidebar of the home page have issues related to white space, alignment and balance. Focus is appropriately drawn to the large masthead image and the accompanying vertical menu of global navigation items and the remaining global navigation buttons linking to corporate content and functions are placed appropriately at the extreme top of the page. But placing the search function on a white background element between the top navigation bar and the image and other global navigation links traps white space, chopping up the masthead into two separate looking areas, separating global navigation too widely and taking up more space on the page than is necessary. A margin to the left of the tagline and left sidebar content elements adds unneeded space to the left sidebar and causes some page balance issues. At the bottom of the page, the three links underneath the sidebar ("copyright notices," "Terms of Use" and "Privacy Statement") are not vertically aligned with the links in the central footer of the page. This effect unnecessarily echoes the transition between logo and global navigation at the extreme top of the page.

On the sub-pages, a color-coded bar just below the masthead contains cross-links to various related pages within the sub-section or in other sub-sections of the site. Since this bar is placed in a prominent position on the page, it tends to masquerade as global or local navigation although it may lead users away from the current sub-section to an unexpected area of the site. Although an attempt is made to include breadcrumb navigation on each sub page, it stops one level above the current page without including the current page name.

Redesigned Interface Wire frames

Home page

Logo	Home	About Us	Press Room	Investor Relations	Careers	Contact Us	
	[Empty space]						
tagline	Financial	Healthcare	Learning	Legal	Business/News	Scientific	Tax/Accounting
	[Empty space]				search	in Thomson	
Image and Section tagline (image and section tagline change via Javascript upon mouseover of global navigation or scoped notes)	Financial	News & Business Info	Date 1 Obruo qui venio facilis utinam te. Saepius tation accumsan tum torqueo				
	Obruo qui venio facilis utinam te. link to more.	Obruo qui venio facilis utinam te. link to more.	Date 2 Obruo qui venio facilis utinam te. Saepius tation accumsan tum torqueo				
	Healthcare	Scientific	Investor Relations				
	Obruo qui venio facilis utinam te. link to more.	Obruo qui venio facilis utinam te. link to more.	Videos: watch video download quicktime				
	Learning	Tax & Accounting	Stock Share Prices: xxx nnn ddd fff xxx nnn ddd fff				
Obruo qui venio facilis utinam te. link to more.	Obruo qui venio facilis utinam te. link to more.	Careers					
Legal	Explore our newly designed career center asdf jkl; asdf jkl;						
Obruo qui venio facilis utinam te. link to more.							

Sub page

Logo tagline	Home	About Us	Press Room	Investor Relations	Careers	Contact Us	
	[Empty space]						
	Financial	Healthcare	Learning	Legal	Business/News	Scientific	Tax/Accounting
	Home > This page			<input type="text"/>	<input type="button" value="search"/>	<input type="button" value="in Thomson"/>	
<input type="button" value="Product login"/>	Image		Welcome to Thomson Financial				
Financial	Capio tego, paulatim cogo ut amet ludus jugis ullamcorper nulla iustum ea antehabeo. Ea adsum populus luptatum brevitatis ventosus ea qui, mara torqueo. Capio defui quadrum vero ille sit paulatim iriure ne accumsan wisi vel eros qui tation.						
Investment Banks	Press Releases view all						
Investment Managers	date 1	release	release	release	release	release	release
Sales & Trading Professionals	date 2	release	release	release	release	release	release
Corporations	date 3	release	release	release	release	release	release
Products & Solutions A-Z	more content		more content				
Partners & Services	more content		more content				
Conferences & Events	image						
	Related Links:						
	link1 link2 link3						
	image						
	Featured Product						
	Obruo qui venio facilisis utinam te. link to more						
	image						
	Featured Event						
	Obruo qui venio facilisis utinam te. link to more						
	image						
	Features						
	Obruo qui venio facilisis utinam te. link to more						

Analysis of Redesigned Interface

The redesigned interface addresses some of the issues inherent in the current interface design and makes improvements where needed. One of the most important improvements is making all of the global navigation items more easily accessible from every page. There will be two groups of global navigation buttons. "Home," "About Us," "Press Room," "Investor Relations," "Careers," and "Contact Us" represent links to corporate content and functions and will remain at the top of the masthead. Global navigation links to sub-sections of the site related to products and services ("Financial," "Learning," etc.) will be located on a horizontal bar along the bottom of the masthead. On sub-pages, global navigation linking to products and services be moved from the "Explore Thomson" drop-down menu at the right of the top global navigation and placed on the horizontal bar at the bottom of the masthead. The horizontal bar containing cross-links will be eliminated from the sub pages and the cross-links will be moved to a "related links" area on the right sidebar. On the home page, all navigation buttons will follow the same color scheme as the navigation buttons at the top of the masthead. On sub pages, the color scheme of the global navigation at the bottom of the masthead will be altered so that the background of the elements matches the color assigned to the sub-section and text is rendered in a color that blends well with the general scheme and is easy to read against the background.

The logo and masthead area will be redesigned to eliminate trapped white space and better handle balance issues, particularly on the main page. Specific changes made are:

- The search box will move from the masthead to the top of the right sidebar and advanced search will be eliminated. Advanced search currently offers only a few more search options than the scoped search, so these categories will be added to the scoped search.
- The extra space surrounding the element containing the tagline will be eliminated and the tagline element moved upward so that it touches the logo and top navigational bar.
- The entire area currently containing the vertical menu of global navigation buttons and associated JavaScript generated image and tagline will be shortened and moved upward so that it is aligned with the redesigned tagline element.
- The vertical menu of global navigation buttons will be eliminated. These buttons will be redesigned as a horizontal bar of elements like those at the top of the page and will be placed at the bottom of the masthead.
- The JavaScript image and text will either be replaced with a smaller image or a plain color.

Sub pages will echo this masthead design using colors appropriate to the color-coded scheme defining each site sub section.

On the main page, the margin to the left of the logo, tagline and left sidebar will be eliminated and the current items in the left sidebar (press releases, etc.) will be moved

to a newly created right sidebar, below the search box. They are more appropriately placed there because although some of them are related to global navigation items at the top of the page, they do not exactly correspond to them. The scoped notes explaining the major subsections of the site related to products and services will occupy the central content area. The left sidebar will contain JavaScript generated images and text similar to those currently in the masthead.

All html links at the bottom of the page will be consolidated into one grouping of links, centered on the page.

Breadcrumb navigation on the sub pages will include the current page as well as those at higher levels of the site hierarchy.

Implementation Options

The current Thompson.com interface is coded in a left aligned fixed width style that is one of the ways the redesigned interface could be implemented. The left column would contain the logo and tagline and the left sidebar with JavaScript generated image (home page) or local and lower level navigation (sub pages). On the home page, the central column would include the central part of the masthead, including some of the global navigation buttons and the scoped notes (home page) or page content (sub pages). The right column would include the rest of the masthead and global navigation, the search function, related links and other items such as featured products, etc This implementation approach works well for 600x800 display and would also work on a 768x1024 display although there will be white space on the right of the screen. It allows for exact placement of page elements and ensures that they will be displayed in the same relative positions on different sized screens. It is also well designed for printing.

Another implementation approach would be a center aligned fixed width which would eliminate the white space on the right side of the page at high resolutions. The use of a well-matched background color or subtle background image could frame the page attractively by creating a margin on both sides of the page. However, it could be difficult to find a color or image that would blend well with all of the varying color schemes of the site sub-sections and varying the background would likely create some inconsistency.

A third implementation approach is a combination of fixed-width and variable-width elements. In this case, both the left and right sidebars would be fixed and the central column variable. With a variable width middle column the page could expand to fit the size of the window, making the white space on the right side of the page disappear on higher resolution screens. Content on the home page is already carefully drafted to ensure that everything stays above the fold, at least at higher screen resolutions. A variable-width central column would cause more content to appear above the fold. Line lengths in the central column would become longer at higher resolutions but that is not a huge issue on this site because, on many pages, this area is further broken up into sections via the use of html tables. One potential problem to pay attention to is that, like the central content area, the center of the masthead would also have to be made variable width in order for the entire page to render at the same width. Special attention would have to be made in the design and placement of global navigation menus and coding this part of the page may pose some complicated issues. Any images used in the masthead would need to be chosen and processed with care to ensure that tiling doesn't occur in a noticeable way.

A combination of fixed and variable width elements is the recommended implementation approach. This approach will ensure that elements such as the left and right sidebars appear consistent from page to page and will help shorten some of the longer pages so that more content is visible above the fold. On higher resolution monitors, the pages will expand to fit the width of the window, eliminating any white space on the right. As higher resolution monitors will likely become more standard in the future, this option also seems to hold more potential for future developments to the website.

Appendix A

Figure 1



Figure 1: Home Page (1024x768 resolution, 12" monitor, window maximized)

Figures 2 & 3

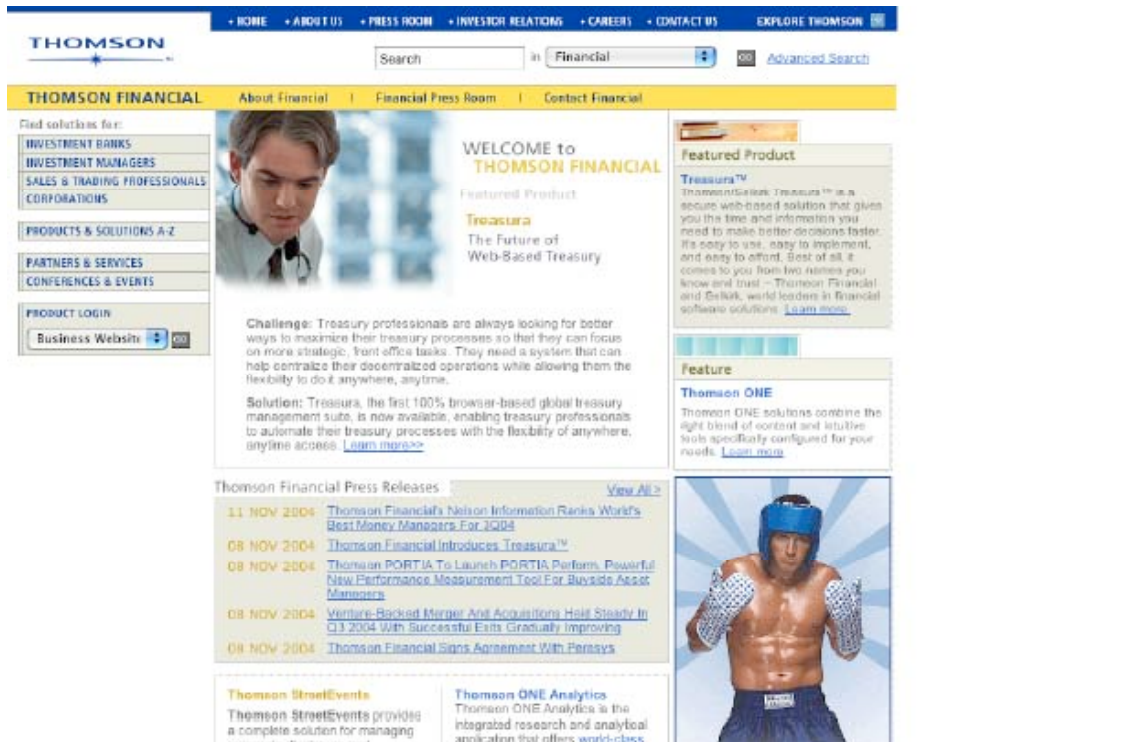


Figure 2: Financial Section Header Top (1024x768 resolution, 12" monitor, window maximized)

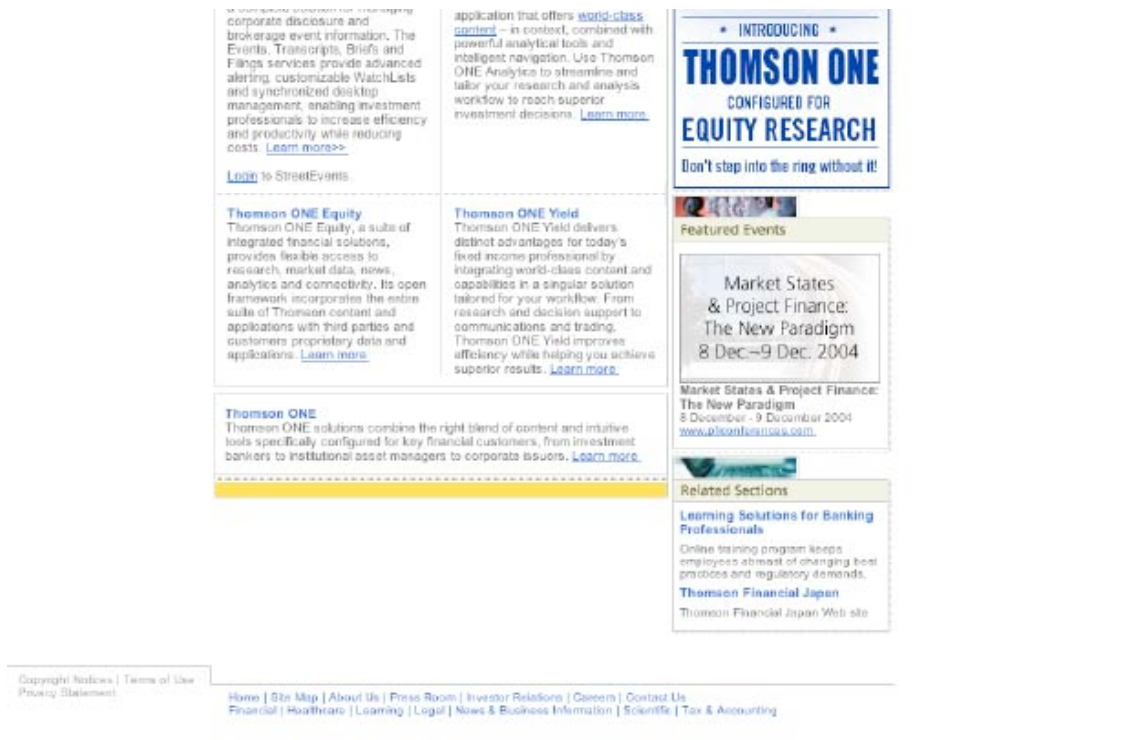


Figure 3: Financial Section Header Bottom (1024x768 resolution, 12" monitor, window maximized)