# Horizontal Scrolling Navigation

## Current System Problems

The current scrolling navigation uses arrows on either side to show that there is more hidden content. According to research done on the Apple site, users do not notice these queues.

There is nothing showing how much content is left. Research shows it's helpful (but not required) for users to be able to see exactly how much content is left in the navigation menu.

If there are only two tabs in the navigation, users find it difficult to tell which one is active.

Currently, desktop users can only navigate using the arrows, tablet and mobile users can use both the arrows or swiping, but the interaction feels clunky when the arrows are used.

There is a large "dead space" at the end of the navigation after Property Improvements that is both confusing and not visually appealing.

## Possible Solutions & Best Practices

### Problem 1 - Unnoticed Queues in the Navigation

Regarding the arrows on either side of the scrolling navigation, research using eye tracking shows that users almost never notice these navigational queues and they not optimal for showing that the area is scrollable. Instead, the navigation should simply cut off the last tab or by using a slight gradient to show there is more content beyond what is currently seen.


The gradient or smoked glass effect has been used in Apple's iOS redesign and effectively communicates that there is hidden information that can still be revealed.

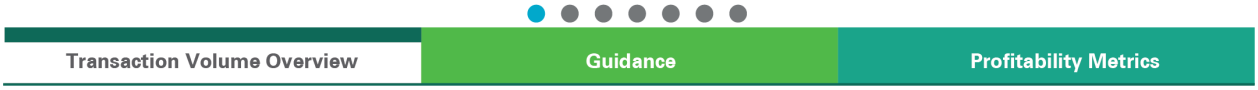

The most optimal method for both iOS and Android is to clip off the edge of the end tab, this clearly shows that there is more information and users will want to see the remainder of the tab which leads them to scrolling or swiping.

## Problem 2 - Unknown Amount of Content

Although this is not required, research shows it is very helpful in horizontal scrolling navigation to show some type of identifier for how much information is still hidden. Adding a scrollbar, numbers, or small tab identifiers would allow users to see exactly where they are at and how many choices they still have to navigate through.


Research shows that users are used to seeing scrollbars and the majority of them click and drag the bar versus clicking on the arrows at either end. This would also allow the user to navigate the browser in a smoother motion and let them move at whatever speed they desire.


Page numbers and arrows to navigate are familiar to users who use any type of Online shopping such as Amazon to Best Buy. It clearly shows they are viewing tabs 1-3 of 7 total and that more information remains hidden.




The dot identifiers are used on several mobile devices including Apple to show which page the user is on and how many are still available. It's a great reference point for the user and lets them know that there is still content that cannot be seen.

## Problem 3 - Active Tab Confusion

Research shows that multiple colors in a navigation panel confuse users. Most users want to see something clearly highlighted with some type of inverse or accent color. Removing the Prologis 4 color scheme and choosing one of the 4 colors in combination with the Chrome palette would be ideal for reducing user frustration, especially in 2 tab choice situations.

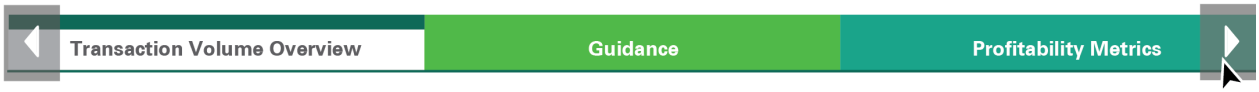

The removal of excessive color combined with an indicator highlighted in an accent color immediately identifies the active tab as shown in the above examples.


If the color must stay, using a dropped down line or space from the active tab that goes under the other non-active tabs clearly shows that all of the information currently being displayed is coming from the active tab, in this case, the tab on the left.

## Problem 4 - Desktop Versus Mobile & Tablet Navigation

While the two don't need to be identical, and technically cant, the movement while scrolling should remain consistent. Currently, the desktop version jumps a chunk at a time only when you click on the arrows. The mobile and tablet version use both the arrows or the much more fluid option of swiping. Research says that while the interactions can be different, the feel should remain the same and that smooth motion wins out over jumping entire segments.


The scrollbar option allows the user to smoothly move through the contents at their own speed much like swiping would do. However, the scrollbar also adds another design elements that could conflict with the design should the dropped down tab line be used as shown in the previous image.




Hover arrows can be shown whenever the user hovers over the navigation bar. This is optimal and used by several major companies including Apple and Netflix. When the user hovers over any area on the navigation bar, hover arrows appear which the user can mouse-over and cause the bar to begin scrolling.


A third option would be to alter the cursor instead of the navigation bar itself. Whenever the user would hover over the navigation bar, the cursor would change to a hand with an arrow that be flashing showing the user that the bar can be moved. The issue with this is that it would still show this cursor when the user wants to click on an option.

## Problem 5 - Dead Space

This is an issue that can be addressed by the Dev team and should be solved with the implementation of a newer system that doesn't utilize the arrows.

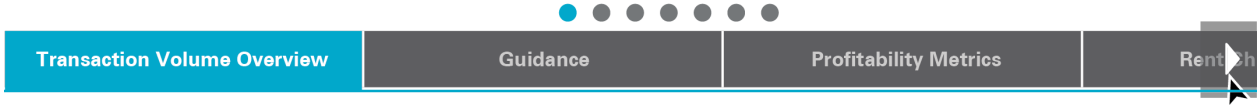
# Design Proposal

According to the research for best design practices and requirements/recommendations for iOS and Android platforms, horizontal scrolling should be very minimal and not the main form of site navigation. The majority of successful horizontal scrolling apps have maintained a single color palette with an accent color to show the active item. Multiple colors on a scrolling bar is confusing to must users and they are unaware which is the active tab.

Showing a portion of a partially hidden tab is the ideal way to indicate that more information exists and can be scrolled/swiped to in combination with some form of identifier to show exactly how many options the user has at all times. For the issue of desktop vs. tablet & mobile, the interaction while different should remain consistent. The option of hovering to scroll smoothly is a better alternative to clicking for ridged movements which can cause the user to lose focus on where they are at.


The resting navigation bar shows which tab is open by using the accent color along with showing the total number of possible tabs at the top. The tab also has a line that expands from the open tab under the closed tabs.


Upon hovering over the navigation bar, the user will see a small line appear over the new tab and the text will glow white. Also, the scrolling arrows would appear on the desktop version.




If the user hovers the mouse over the scrolling arrows the navigation bar will move smoothly to the desired direction revealing more choices. When the user has hit the end of the menu, the arrow for that direction disappears.


Selecting a new tab changes the color to blue and moves the bottom line to appearing from it representing all information is now coming from “Guidance”. The old tab grays out to match the unselected ones.

## Bibliography


Burns, Daniel. DBurns. June 20, 2014. http://www.dburnsdesign.com/blog/2014/06/10-steps-improve-ux-using-simple-ui-animations/ (accessed December 27, 2014).

This article discusses the importance of animations in User Interface design and the need for good Hover animations and movements. This plays a large role in the navigation bar due to the several hover-over options available.

Dyer, Dan. Scrolling Tabs in Android. April 18, 2011. http://java.dzone.com/articles/scrolling-tabs-android (accessed December 27, 2014).

Dan Dyer shows code fragments and talks about the idea of designing good horizontal navigation in Android using Tabs. The style of design shown in the article are common across multiple Android and iOS apps and present a great basis for the redesign.

Google. Building Blocks. 2014. http://developer.android.com/design/building-blocks/tabs.html (accessed December 27, 2014).

These are simply the design standard for the Android operating system as per the developer, Google.

Rees, Damian. A UX Perspective on Horizontal Scrolling. 2013. http://www.experiencesolutions.co.uk/blog/2011/12/12/a-ux-perspective-on-horizontal-scrolling/ (accessed December 17, 2014).

A UX Perspective on Horizontal Scrolling showcases several ideas about what to do and what not to do when developing a horizontal system. This helps in showing the reasoning behind why a horizontal scrolling system works for the Prologis navigation bar.

Sherwin, Katie. Beware Horizontal Scrolling and Mimicking Swipe on Desktop. April 27, 2014. http://www.nngroup.com/articles/horizontal-scrolling/ (accessed December 17, 2014).

This article talks about the problems of trying to mimic a swipe function from a mobile or tablet device on a desktop system. While it shares the ideas that it should be two separate interactions, it should be made clear that smooth scrolling on both tablet or PC should be smooth versus jagged.

UNITiD. Navigation. 2014. http://www.androidpatterns.com (accessed December 27, 2014).

Another resource for discussing design standards for the Android OS and creating functional navigation, specifically when it comes to horizontal scrolling.

Wharton, Jake. Android ViewPagerIndicator. September 12, 2012. https://github.com/JakeWharton/Android-ViewPagerIndicator (accessed December 27, 2014).

This is another article focused more on the proper coding methods to achieve the desired look in the Prologis navigation bar that also reflects the best practices used on the Android OS.