

Responsible Web Designs for Google Glass

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Abstract: The pending out of Google Glass, a ideal for a transparent Heads-Up Display (HUD) worn out above one eye, is significant. It is the early conceptualization of a normal increased reality wearable eye display by a Google. Google Glass is a tiny contraption tack onto a pair of glasses. It is like a undertaking the data across prism. Google Glass lets you facts what you're pondering, think a heads-up display of data (more apps pending out every single date it seems) but in a little setback in thinking web pages like yahoo, Wikipedia , etc.. For that new way will be familiarize in web design as Responsive Web Design (RWD) its aimed at craft locations to furnish an most favorable presentation vision facile reading and exploration alongside a minimum of resizing, panning, and scrolling across a expansive scope of mechanisms.

Keywords: Google glass, responsive web design, heads-up display.

1. INTRODUCTION

Google Glass is a wearable computer alongside an optical head-mounted display (OHMD). It was industrialized by Google alongside the task of producing a mass-market ever-present computer. It mean Omnipresent computing (ubicomp) it is an exceedingly industrialized computing believed whereas computing is made to materialize everywhere and anywhere. In difference to desktop computing, everywhere computing can transpire employing each mechanism, in each locale, and in each layout. So Google Glass displays data in a smartphone-like hands-free format. Wearers articulate alongside the Internet via usual speech like voice instructions.in that we Google will be attention to develop software's and answerable websites , for that Google will be furnish new kind of growing kit like GDK (glass progress kit) .Since the past insufficient months, Google has been reassuring app developers and web designers to craft new gadget and web sites.

Web browsers:

The maximum resolution of the Google glass is **640X360 pi for eyes. In that app developers already develop web browsers. If Google Glass has included a web browser.** Compare with computer screen, smartphone screen resolution it will be very smaller. Google Glass has a small screen in front of our eye. In future Google glass is a contact device, a camera, information in front of our face, newest update and web browsers. We can't in a straight line access to the website. We should perform a Google search and select the websites based on the outcome. It is a hard work for the web developer to build up reactive web pages. When Google rolled out a web browser for Glass in its XE7 software update (the XE stands for "Explorer Edition").The basic principles of the Google glass web browsers are divided in to two important common thoughts on web development are RWD (Responsive Web Design) and Mobile First approach.

Responsive Web Design:

The responsive web design are established on three basics of acts or three main constituents There are flexible layouts, mass media query and flexible media. The early serving, flexible layouts, implies that the layout of the website is crafted employing flexible grids and can energetically resize to each width. Flexible grid are computed on the basis of adjacent length constituents such as percentage or UI constituents, that next choose the width, margins, padding, etc. Every single screen encompass tear resolution for that RWD will be save.



Fig 1.2 Screen size for different device

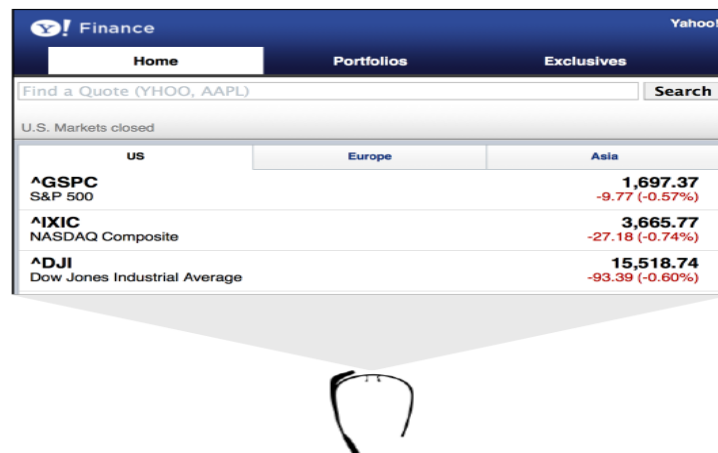
The Google glass will support the desktop or non-responsive sites well but the text will be incredibly difficult to read without zoom and same for selecting the links. Implementing Mobile First for Glass. We should produce our website that responds to the screen on which are being viewed. With Google Glass has a viewport of 427x240px, but it is more complex work.

To Make The Website Readable:

Google Glass permits you to think requests and Web pages employing a display that undertakings data just above your line of sight. The authorized specs delineate the Glass display as a “25 inch HD screen believed from 8 feet away.” So right up front, thinking distance matters. The Web browser on Glass additionally permits pages crafted responsively to change to a extra suitable device-width. In this case, 640 pixels. So a Web page projected to work across a expansive collection of screen sizes should portray in a disparate method on Glass. Given that 600 pixels is a public device-width for inch tablets, the page you’d discern on Glass should gaze extra like the pursuing -modified for a tinier viewport size.



Like most mobile Web browsers, Glass uses a alert viewport to resize Web pages for its screen. On Glass the default viewport size is set to 960 pixels and pages are scaled down for that reason. So if someone is thinking the Yahoo! Finance locale, it displays like this in the Glass browser.



We like to see our websites to be easy to read, even on the glass. User typically don't like zoom in a lot to view the content and have to move their top around to view the whole site. They want the information to be accessed quickly and easily. For responsive web designing the developer has to remember this:

1. Use suitable size for font. Glass users don't like to hold the device earlier to their face to read the contented in the websites.
2. Use contrasting colors, and there should be a difference between the background and the text for our users.
3. The links should be obvious because it is easy way a user will interact with your websites.

Some limitations:

Most of the websites will detect that Google Glass is a mobile device and constantly deliver the mobile version of that website. Glass doesn't at present allow or support signing in to websites or the use of other forms. Some YouTube videos will play normally.

Browsing With Glass:

The merely method to open the browser in Google is to use the Find app alongside our voice and click on a find result. If the find consequence is not implore each of the affluent snippets, we will become the early seven Google find consequence and nowadays we will be able to browse to those websites.

Html5 Support:

We have maximum grasp of HTML, CSS and JavaScript, encompassing CSS animation and XHR calls. In conditions of mass mass media, Energetic GIF, SVG and Webpage are upheld correctly. HTML5 video and audio are completely grasp and working properly. We can use the YouTube and frolic every single videos on our home-screen or in Google's find result. scroll and click are the two vital deeds that helps to use the web pages in the internet, but we can't able to make a find inside a website or make a log in. Articulate considering the forms, merely checkboxes, wireless buttons and drop down menus are suitable as there is no keyboard. Drop down menus will onset a default Android dialog that doesn't stare too flat as glass.

2. PERFORMANCE

The web page doesn't show on the screen until it has been overloaded fully. The screen will be loading for a while. Animations and image presentation are not good, and it seems there is no hardware speed up as for a image Animation.

Responsive Web Design:

Width of the device: 640px

height of the device: 360 px

width: 427px

height: 240px

orientation: landscape

-webkit-device-pixel-ratio: 1.5

The device dimensions are mentioned in physical pixels and viewport dimensions are in CSS pixels, because the Pixel Ratio is 1.5. Therefore, to deliver a different layout for a Glass user, we must use

@media screen and (width: 427px)

```
{
/*glass layout*/
}
```

Position absolute works properly, even when moving and panning with our head.

Advanced Viewport Management:

Glass Browser is has the viewport statement alongside target-densitydpi=device-dpi that will give the physical pixels as the CSS pixels (therefore width will expose 640px).If we delineate a user-scalable=no viewport, next the whizzing deeds alongside two fingers will be disabled.

3. CONCLUSION

We don't understand how Glass will change user's presentation but it's always vital to be ready. This is the early edition of the browser and I'm sure it will have enhance beforehand going to the area in the market. We demand a larger method to burden and grasp the URLs and to interact alongside websites employing our voice, adding deeds, gesture and even spreading websites

REFERENCES

- [1] Google Glass. 2014. [2014-01-03]. Website: <http://www.google.com/glass/start/>
- [2] Browse the web. [2014.04.04] Website: <https://support.google.com/glass/answer/3231625?hl=en>
- [3] Joe Casabona The Web Designer's Guide to Google Glass. Website: <http://webdesign.tutsplus.com/articles/the-web-designers-guide-to-google-glass--webdesign-13968>
- [4] Google Glass Browser: HTML5 and Responsive Web Design in your head
website<http://www.mobilexweb.com/blog/google-glass-browser-html5-responsive-web-design>
- [5] What it's Like to Browse the Web on Google Glass BY PETE PACHAL [2013.07.02]
<http://mashable.com/2013/07/02/google-glass-browser/>
- [6] Google Glass gets full-on web browser, new hands-free functions in monthly update By Chris Welch [2013.07.01]
<http://www.theverge.com/2013/7/1/4483772/google-glass-gets-web-browser-new-hands-free-functions-software-update>
- [7] Google Glass and the Future of Web Design BY BILL CASEY IN INDUSTRY INSIGHTS [2014.02.07]
<http://www.wsol.com/google-glass-and-the-future-of-web-design/>
- [8] Website Design through Google-Coloured Glasses by Moveable Online | 28.08.2013
<http://blog.moveableonline.com/2013/08/28/website-design-google-coloured-glasses/>

- [9] Google Glasses: You've Got Responsive Design in Your Eye RYAN WROTE THIS ON JANUARY 02, 2013 <http://zurb.com/article/1141/google-glasses-you-ve-got-responsive-desi>
- [10] Announcing the Web Designer's Guide to Google Glass [] by Joe Casabona <http://casabona.org/2014/02/announcing-the-web-designers-guide-to-google-glass-ebook/>
- [11] Google. 2014. [2014-01-03]. website The Glass Explorer Program, <http://www.google.com/glass/start/how-to-get-one/>