



SIZE REALLY MATTERS

HOW FIXED-SIZE BANNER ADS HAVE BECOME IRRELEVANT IN A RESPONSIVE WORLD.

SUMMARY

The online advertising industry currently holds the assumptions that (a) the “Click Rate” is a single constant metric and (b) that it is suitable for measuring the effectiveness of fixed-sized banner ads. As was shown in the Liqwid white paper *Online Dayparting Study Reveals Misunderstandings of Click Rate Metrics*, these assumptions are incorrect. The Click Rate is a floating number affected by a wide range of variables such as the time of day, exposure time, frequency and the number of times one ad is rendered on each unique viewer’s screen.

In this study, we compared known issues with fixed-sized banner ads against the growing body of data for responsive online ads placed outside of the content on a premium publisher website using Viewer Directed Placement¹ technology. Our intent is to demonstrate that the size of the ad rendered on the viewer’s screen has a direct correlation to the audience response rate (Click Rate, Direct Response Rate). The number of “clicks” increases in absolute numbers when an ad holds a larger portion of the total display area regardless of position. The implications of these findings could give advertisers and publishers a clearer understanding of advertising performance and improve outcomes for media planning and scheduling.

Our data also shows that performance is greatly enhanced for ads that are placed in a responsive environment. Responsive ads give advertisers and publishers unprecedented control over visibility and scheduling. Unlike fixed-sized banner ads,

¹ Ad distribution technology based on a unique methodology of passing a queue of ad placements from the server to the browser that allows for controlled ad rotation and iteration managed for each individual viewer, TV-like scheduling control based on the audience’s time zone, census-based reach and frequency, local dayparting, minimum size and minimum exposure time parameters and other benefits.

responsive ads utilize a specified part of the display area for advertising without disrupting the viewer’s experience. While the responsive environment provides a bigger pallet for both, auditorium and advertising content, it sustains a higher level of performance than any fixed-size banner advertisement.

More and more websites will transition to the responsive environment for their advertising content. The shift could potentially affect online advertising and the opportunity opened for business and advertising models that may benefit both side of the market, publishers and advertisers.

The data cited by this whitepaper is based on the statistical data gathered during a recent campaign using responsive ads placed outside of the content page area on a premium publisher website and delivered by Liqwid Viewer-directed Placement technology.

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NIKOLAI MENTCHOUKOV is the founder of one of the largest ad agencies in Moscow and one of the leading experts worldwide in rich media content and online advertising technologies. He is the creator of the first Webmercial and developer of the Rich Media File Optimization Technique. In 1999, his developments allowed instant streaming of rich media with no download time for even slow modems. Nikolai is the winner of numerous international awards in recognition of his achievements in the technology and creative fields, including the World Best Website 1999-2000, and was elected member of the panel of judges for International Web Page Award in San Francisco, New York Festival and Utah Innovation Award. He is also the author of series of theories on digital advertising methodologies and the inventor of FSDC ad tracking technology that sparked the viewable impression metric.

JIM ROWAN has more than twenty-five years experience in financial services and technology. He founded and operated several successful organizations including EncripTix, a Paul Allen-backed technology startup, and ARCUS Financial Services, which arose from a technology-based incubation effort to diversify a Fortune 50 company. Jim was a key, senior executive at SunAmerica, where he oversaw its operations and technology organizations as well as the company's M&A efforts. SunAmerica experienced tremendous growth with its market capitalization increasing from \$300 million to nearly \$16.5 billion with the sale to AIG in just fewer than 8 years.

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ABOUT LEFTSNRIGHTS, INC.

ABOUT LIQWID: Liqwid®, a brand of LeftsnRights, Inc., was founded by Nikolai Mentchoukov and Jim Rowan in 2010. The Liqwid advertising platform delivers fixed-sized and responsive ads to any responsive environment and creates new, viewable and premium inventory with the empty space outside of a content page. Ads automatically adapt to any ad size, location, device, operating system, and browser inside the content area or out. The company also features innovations like Viewer-Directed Placement™ and local dayparting to enhance the accuracy of measurable deliverables and scheduling. The company has offices in Salt Lake City, UT and Nevada. For more information about Liqwid technology, visit <http://www.liqwid.com> or contact Sarah Prater at 800-870-5006 or [sp\(at\)liqwid\(dot\)com](mailto:sp(at)liqwid(dot)com). The company's Twitter feed is @LiqwidAdTech (#liqwidads).

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THE MOTIVE FOR ONLINE ADVERTISING

More than 25 years ago, computer technology was comparatively primitive by today's standards. However, the early IBM PC was considered so cutting edge that the New York Stock Exchange presented the pioneering desktop computer in a full-page ad of the November 20, 1986 issue of The New York Times (Figure 1). Powered by limited graphics capability of the standard CGA with 320 x 200 pixel screen resolution, the early model personal computer could only generate seven colors. Graphical elements were represented by large blocks of color; comparatively cumbersome and unattractive by today's standards. QVGA was only a slight improvement with 320 x 240 pixels. In both cases, many users could see "pixels" without the aid of reading glasses (see Figure 6, to see a comparative chart).

There was no online advertising back then, no Internet, and little incentive to consider user experience. However, only seven years later, a new range of video capabilities changed all that. Users saw **HVGA 480 x 320 resolution** with added greater color depth. Soon after that, VGA graphics technology was released with 640 x 480 pixel display.

By 1992, software began taking advantage of a rapidly developing graphics and processing capacity. The Viola browser (Figure 2) was the first such software that could provide reasonable capabilities for quality of graphics acceptable for advertisers. **Viola browser was unique in several ways. It supported interactive embedded objects, tables, input forms, stylesheets and other useful graphical functions.**²

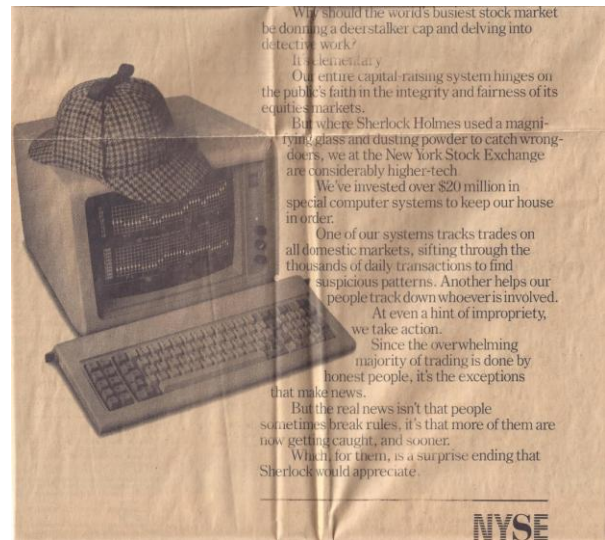


Figure 1: NYSE's ad that appeared the November 20, 1986 issue of the New York Times.

² Viola Web Browser Archive, <http://www.viola.org/>



Figure 2: The Viola browser.



Figure 3: The AOL system splash page (after member login).

This rapid transition is important for the background of this study, because the drive to render relatively memorable graphics put pressure on commercial service providers to monetize as much of the interaction that users had with their computers. It was not long that content providers and technology professionals began producing advertisements and promotional graphics that were specifically designed for the computer screen.

The Viola browser was designed with this application in mind. One portion of the graphical user interface was dedicated to sponsored ad buttons that were not real “paid” ads but promotional marks designed to raise awareness among users. Based on first-person accounts, sponsorship buttons were not very successful. One argument reasons that the sponsor ads were too small relative to the content visual weight and location on the screen to be effective. However, it was tremendous step forward in a developing realization that advertising could generate revenue.

The AOL browser was launched in January 1993, and presented graphics quality where it was commercially feasible to sell online ads. The screenshot in Figure 3 is of the AOL splash “page” that appeared just after the member login. The page itself would have covered all but a small sliver of a VGA monitor (640 x 480 pixels), which was standard on most personal computers sold at the time. The quality difference was remarkable. Thanks to concurrent development of the 14.4 baud modem, access providers like AOL, Prodigy, Compuserve and eventually Earthlink, began to create more attractive content that drew in more users eager to expand their online experience.

Thus, the stage was set. The rush to fill online channels and exploit online advertising was on.



Figure 4: The first meaningful banner ad, sized 468 x 60 pixels; 28,080 area



Figure 5: 468 x 60 banner ad superimposed over a full screen AOL splash page. Note the relative size of the ad compared to the total viewable area of the VGA display (640 x 480).

HOW 480X60 BECAME AN INDUSTRY STANDARD

According to several sources, the first clickable online ad that was seen by a wide audience was launched on October 27, 1994. AT&T sponsored the ad to promote art museums to readers of HotWired.com. The ad was sized 468 x 60 banner (Figure 4) and according to one first-hand account, “was quite the ugly thing.” It was also positioned above all other content, in what is now called the “leaderboard” area of the page.

Joe McCambley claims to have created the AT&T banner ad while he was working at a Modern Media, one of the first advertising agencies that served the fledging digital marketplace³. According to McCambley, the ad was highly successful, clicked by 44% of readers who saw it. Back in those times, the only measurement for online traffic was counting user requests (hits) to serve a page or graphic, so actual results could be far different from McCambley’s recollection. Nevertheless, the impression that the first banner ad was successful has remained. For better or worse, this legacy carried forward to the present with fixed sized banner ads.

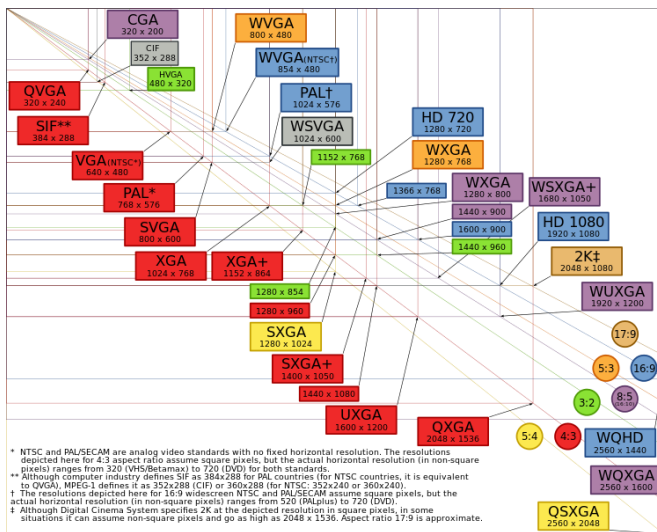


Figure 6: This chart shows the evolution of computer graphics and monitor technology. Rapid development began after 1986 when the personal computer brought along the then standard CGA monitor (320 x 200). Demand for better graphics and improved functionality led to greater resolution and color depth⁴.

Creative and effectiveness debates aside, it is also important to note what the sponsor actually paid for from this pioneering ad placement. In Figure 5, the AT&T banner ad is superimposed over the previous screen shot of the AOL splash page. The 468 x 60 banner was designed for the HVGA (480 x 340) display. Had it appeared on HVGA screens as intended, the effective “real-estate” of the ad would have been a significant 17.2% of the total viewing area. However, by the ad was launched, many users were already switching to VGA (640 x 480) where the ad was reduced to 9.1% of the total viewing area. Therefore, it is our contention that the size of the banner ad was unintentional.

Not long after the first ad was launched, most users were already migrating over to SVGA (800 x 600) where the 480x60 banner ad shrank to about 5.9% of viewing area. Banner ad shrinkage only gained speed as monitor resolution increased well beyond VGA/SVGA resolution (Figure 6).

³ “Stop Selling Ads, Do Something Useful,” Joe McCambley, Harvard Business Review, http://blogs.hbr.org/cs/2013/02/stop_selling_ads_and_do_someth.html

⁴ “Graphic Display Resolution,” Wikipedia, http://en.wikipedia.org/wiki/Screen_resolution.

Relative Growth of Monitor Screen Sizes (in pixels)

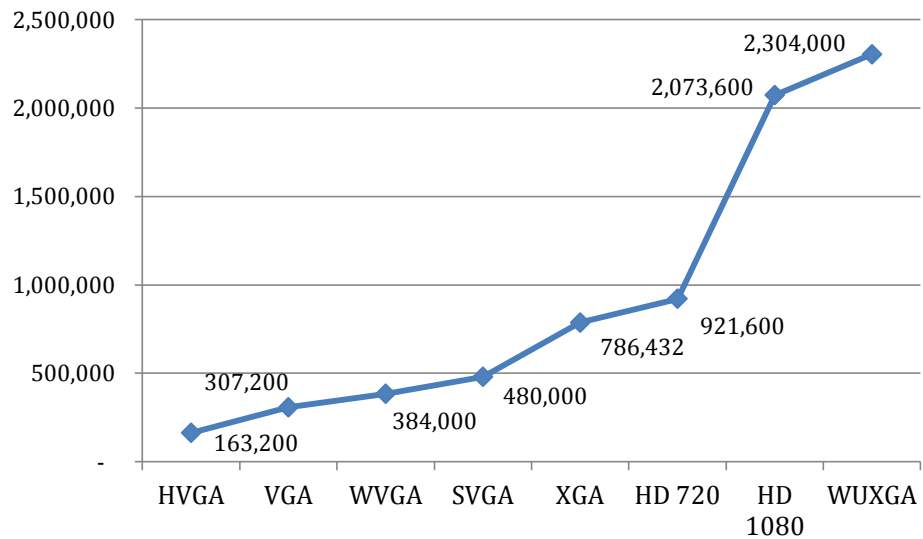


Figure 7: This graph shows the relative growth of monitor viewing area (in pixels, WxH).

Fixed-Size Banner Ad Area (%) Relative to Viewable Area

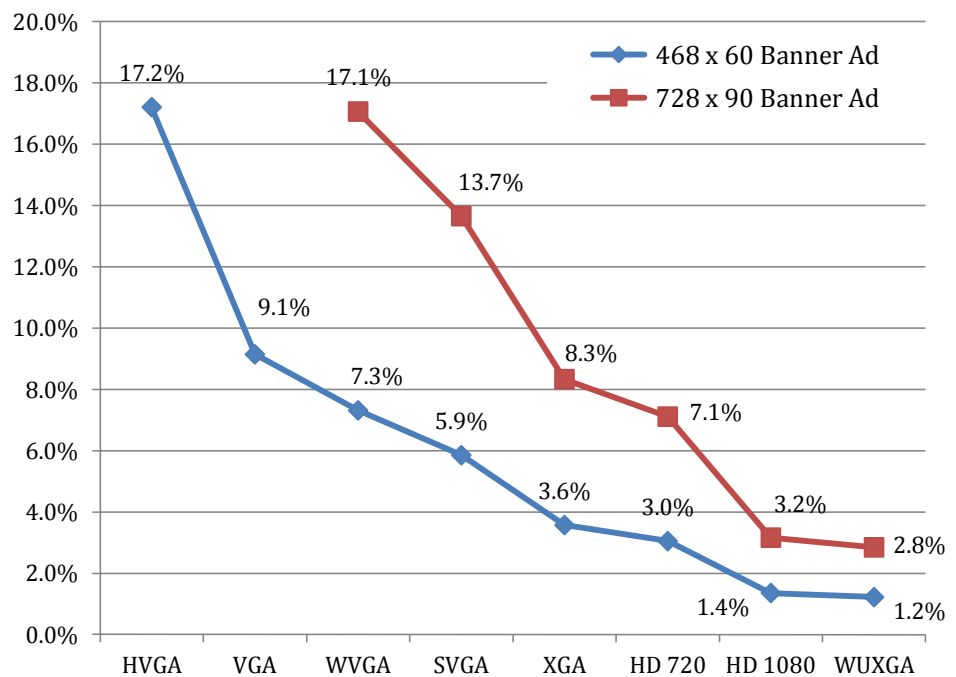


Figure 8: This graph shows how percent (%) of viewable area for two fixed-size banner ad standards have shrunk relative to monitor viewing area. The 468 x 60 banner ad was introduced for the HVGA monitor; the 728 x 90 banner ad was introduced for the WVGA monitor. See Figure 6 for a comparative chart of various monitor sizes.

SHRINKING RELEVANCE FOR THE FIXED-SIZED BANNER AD

Technological advancement in screen resolution and bandwidth has been a constant force of change on the viewer experience. This force has not been a positive one for advertisers. In little more than 20 years, the viewable area has dramatically increased (see Figure 7), but meanwhile two industry standard fixed-size banner ads have shrunk just as suddenly (Figure 8).

The 468 x 60 banner ad – long the standard size for leaderboard ad positions – made its debut with about 17.2% of the screen, now occupies only 1.2% relative to the total viewable area when seen on a WUXGA (1920 x 1200) monitor. About 10 years ago, publishers adjusted to expanding screen sizes with an update to the “leaderboard” banner ad. The new banner ad size, 728 x 90 (Figure 9), which is more than twice the former size, started with 17.1% of the screen, but now has also shriveled to 2.8% of the viewable area. To put this in another perspective, while the total available surface area of the monitor has more than doubled, fixed-size ad space has been reduced by nearly 20 times its original area.

Obviously, the two forces – screen size and ad placement – did not experience the same kind of growth, however even as fixed-size banner ads got a lot larger in terms of absolute size (pixel area) they actually shrank so much that it is a challenge to say that they are still relative in today’s media driven advertising market. The screen shot in Figure 10 is from what is now a common HD standard screen and the 728 x 90 banner. Compare this example to Figure 5 and you can see the dramatic change in the viewer’s experience.

Assuming that all online ads delivered on a content page are viewable and that ad rates didn’t grow (which we know is not the case), one can argue that today, after twenty years of evolution, advertisers could be paying for something that is actually nearly twenty times smaller in terms of area relative to the rest of the screen. Put another way, ads are sold based on probable impact – the likelihood that a viewer will see the ad (impression). If probability increases or decreases depending on the size of the ad relative to the total area of the screen (not just the content area) then any decrease dilutes the value of the ad by an equal measure.

Here is an interesting analogy. What if 20 years ago you made a deal to buy a lifetime full-page ad in a pocket brochure. Twenty years later, the brochure has grown to the size of the New York Times. Should the publisher print your lifetime ad at the same original physical size, or should your ad grow to the new “full page” size even though the publication is almost twenty times larger?



Figure 9: The successor leaderboard ad – sized 728 x 90 pixels; 65,28,800 – more than doubled the physical banner ad size. But on a standard HD screen (1920 x 1200), only occupies 2.8% of the viewable area.

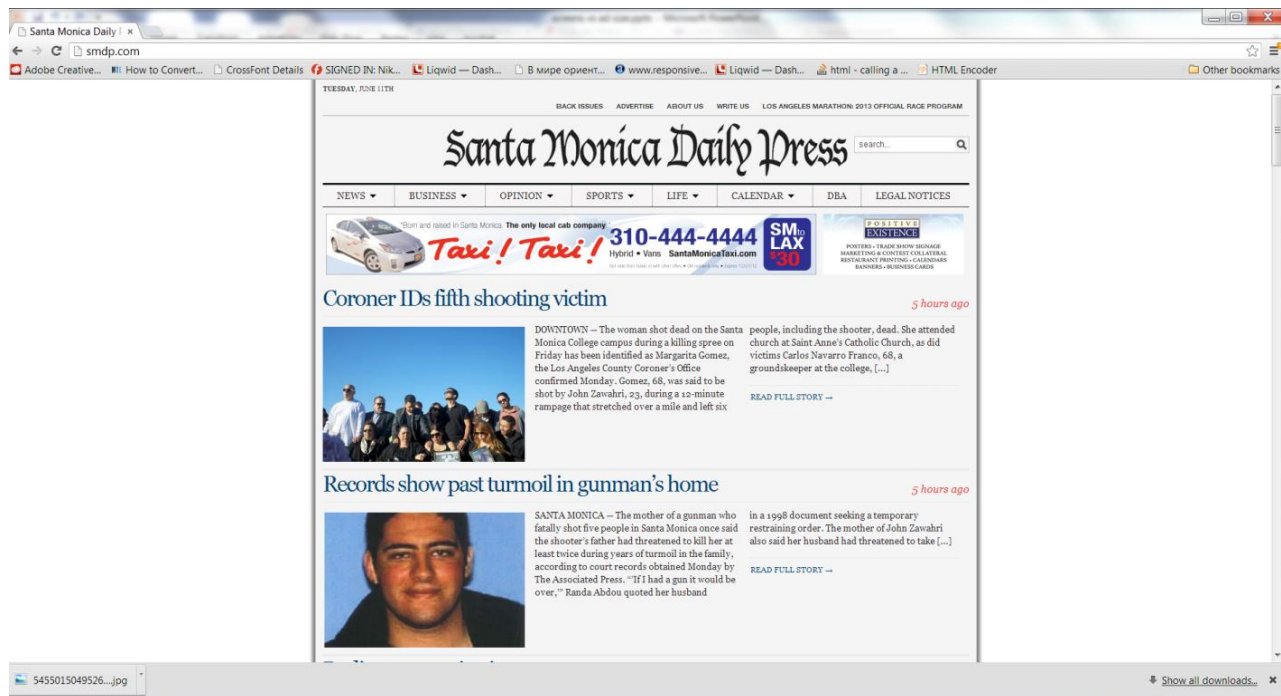


Figure 10: A screenshot from a HD screen (1920 x 1200). The “new” leaderboard banner ad is virtually invisible when viewed on the full screen. Compare this image with Figure 5; which ad has more impact?

NOW, THE GOOD NEWS

In print media, ads are sold based upon the proportion of the page area: full page, half page, quarter page, et cetera. Figure 11 is a basic magazine layout grid. Notice the grid that divides the page into logical parts. Ads are sold on the basis of a grid and on premise that a defined size holds a certain prominence on the page, regardless of the size and dimensions of the page. There is nothing technological about this methodology – it has been in place for more than a century. In a manner of speaking, you get what you pay for – literally.

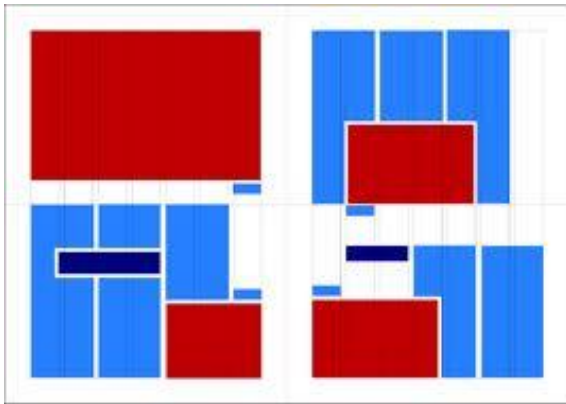


Figure 11: Magazine layouts are based on column structure or layout grid. Advertising space is then planned around the layout grid and space is sold based upon the proportion of the page area (full page, half page, quarter page, et cetera).

Online publishers can also structure their ad sales when they make the decision go responsive. Rather than rely on fixed-size banners and boxes, they can instead define the portion of the viewing area that is dedicated for advertising. This approach guarantees adequate prominence on each individual screen for both, content and advertising, per the publisher's design and provides an adequate viewer experience on any device without disruption to the auditorium content.

Since browsers can be resized at any time, advertisers and publishers cannot predict with any degree of accuracy the environment into which fixed-size banner ads are delivered. When a publisher switches to responsive ads, they can specify the 'real estate' that is being sold for ads and facilitate ad purchases that are defined by the device types that dominate the market (examples: desktop/laptop computer, tablet and mobile devices).



Figure 12: In the responsive environment, ad placement and sizing can be structured to fit the device and screen resolution setting and guaranteed position on the generated "page." Relative to the screen, the ad still occupies a pre-determined position and prominence.

In the responsive model (Figure 12), advertisers buy into a simplified and optimized advertising inventory that is analogous to the same advertising concept used by print media for nearly 100 years. Only the responsive ad environment makes this possible.

At the end of the day, content and advertising ought to work together as part of the positive viewer experience. The current model of fixed-size banners cannot possibly contribute to a positive experience because it is impossible to design a page that accommodates all of the possible configurations of the viewer screens available today.

The Liqwid responsive-ad delivery, as an example, allows publishers to design for the impossible. There is no obstacle for online publication to monetize their properties and maximize the viewer experience without sacrificing either. The responsive advertising model in fact emulates the simplicity of design and implementation that print publishers have always enjoyed.

ANALYSIS OF THE “VIEWER EXPERIENCE”

The size distribution of the ad delivered is a function of the screen size. About 90% of desktop and laptop computer owners have screen resolution settings greater than 1024 x 768 (Figure 13)⁵. Liqwid conducted a study of the viewer experience based on screen resolution and ads that were delivered. During the study, about 77% of unique viewers that saw ads that were delivered by the Liqwid Ad system had screen resolution set to 1280 or greater. Notably, the average ad size was 412 x 755 pixels, or about 311,060 total area (in pixels). For reference, a standard Leaderboard 728 x 90 banner has 65,520 square pixels surface area.

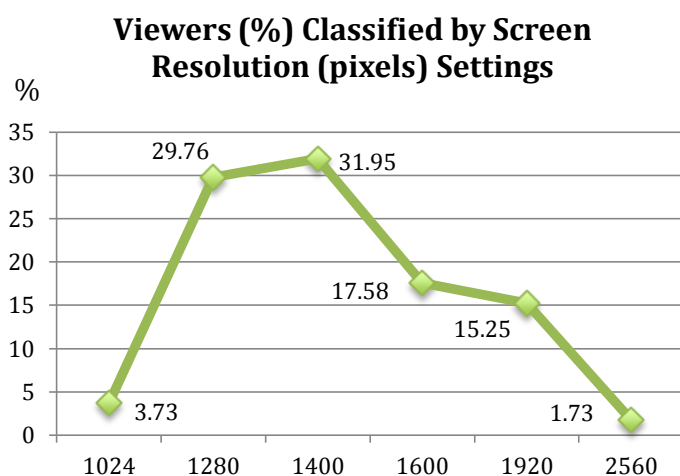


Figure 13: About 90% of current desktop and laptop computer users have screen resolution settings greater than 1024 x 768. Source – W3Schools.com.

The charts on the following page (Figures 14 and 15) demonstrate the distribution in percentage of all campaign impressions and clicks relative to different ad sizes that were rendered (in 50-pixel increments). Ad render sizes increase with the relative screen resolution settings. In other words, ads rendered at 120-168 pixels

It is noticeable that in Figure 14, clicks and impressions do not always carry the same proportion or density – compare data points as percent (%) of total clicks exceeds percent (%) of total impressions. For instance, when the ad is rendered at 320-368 pixels, it receives about 16.96%

of total impressions but 23.22% of all click throughs. The click rate at the same ad render size is 0.46% (Figure 14). Compare with ads rendered at 220 - 270 pixels, generating 26.03% of all impressions but delivering only 15.83% of all clicks (or an average click rate of 0.21%).

In this study, ads with greater prominence on the page delivered more clicks in absolute numbers and with more than twice higher click rate. The larger size ads also contributed more clicks for the entire campaign. The click rate floating number shows that larger-sized ads consistently generate a higher click rate (up to 0.5%) which also resolves in a higher number of clicks delivered in absolute numbers.

⁵ Browser Display Statistics, January 2013, W3Schools.com; http://www.w3schools.com/browsers/browsers_display.asp

Distribution of Impressions and Clicks by Ad Size

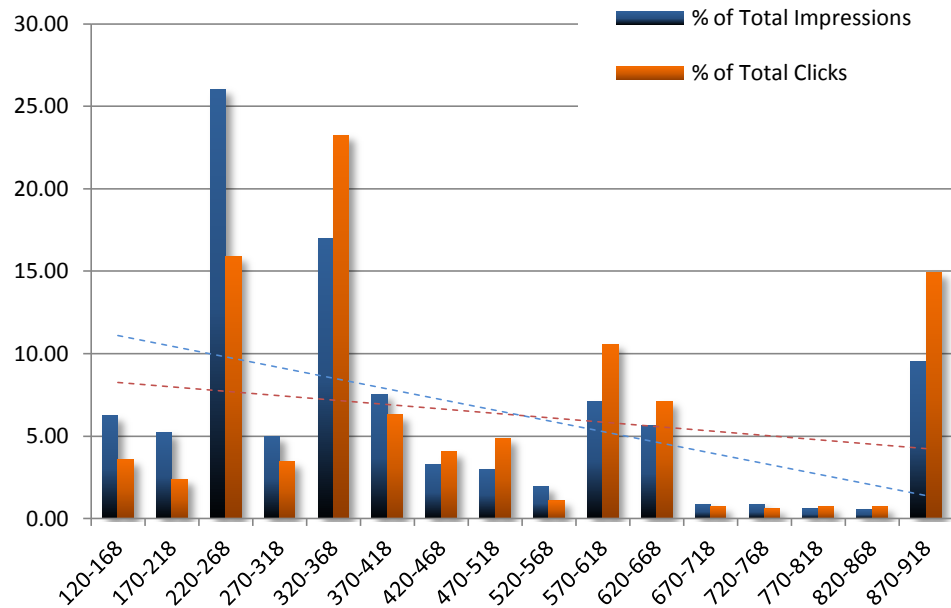


Figure 14: In this chart, ad render sizes increases with screen resolution settings. Note the point when percent (%) of total clicks exceeds percent (%) of total impressions.

Click Rate in Relative to Ad Size

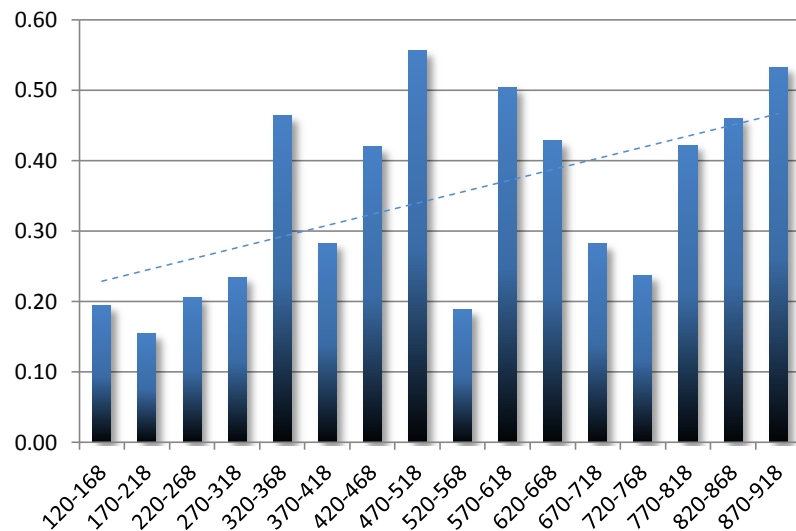


Figure 15: As in the previous chart (Figure 13), ad render sizes increases with screen resolution settings. Note the trend line, pointing to an upward trend of click rates while both ad sizes and relative screen settings increase.

CONCLUSION

Although it may be difficult to think of anything that involves the web as being “antiquated,” the existing online ad infrastructure seems to fit that description. Ironically, fixed-size banner ads grew from the notion that advertisers were accustomed to purchasing fixed size ads as they would in a directory, a newspaper or a magazine. However, the reality of website publishing is that “standard” fixed-size ads are not a sustainable value for the advertiser because the page size is always changing.

Just as antiquated is the rationale that standard fixed-size banners are beneficial to the advertiser and publisher because the convenience of running one size ad on multiple websites without having to adjust sizes to match different page layouts. As proof of the fact that this idea never worked well from the start, there are 15 IAB (Internet Advertising Bureau) “standard” ad sizes⁶ and about 60 additional sizes to accommodate mobile devices currently in use in the marketplace⁷. Hoping to reign in the elusive ‘standard’, the Mobile Marketing Association (MMA) is now trying to pare down the catalog to six banner sizes⁸.

For publishers, managing multiple sizes of ad placements can be a cumbersome task. For advertisers, working with standard-sized ads that exist essentially in a form of a single media file, limits the palette available for the digital artists. Ads may also be less effective without prominent placement within the bounds of the viewing area. Finally, there is the long-standing question of effectiveness of small fixed-sized banners on smaller mobile devices.

As the number of devices on the market has increased, so has the complexity of online content creation and ad delivery. Website publishers are dealing with an audience that is more diversified – by nature of an ever-increasing number and variety of web-enabled devices each with their own unique display formats, resolutions, and operating systems. Meanwhile, responsive websites that provide consistent device-optimized content are also growing in number making management and delivery of fixed-sized banner ads increasingly complicated.

The statistical data presented in this study shines a light on a persistent and growing realization that the time for the fixed-size online banner ad is quickly fading. This study supports the expectation that viewable size of the ad and its prominence on the viewable area has a direct affect on direct response rates. Moreover, responsive ads are by far more effective in creating a more impactful overall experience for each individual viewer without disrupting the quality of the ‘auditorium’. Does ad size really matter? Apparently so, and in more ways than we have ever expected.

⁶ IAB Display Advertising Guidelines, <http://www.iab.net/guidelines/508676/508767/displayguidelines>

⁷ IAB Mobile Advertising Guidelines http://www.iab.net/guidelines/508676/mobile_guidance

⁸ Mobile Marketing Association <http://www.mmaglobal.com/>



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