Thom Harrington WEB120 | Winter2019 BIG Research #1

Biggest Bang for the Future: Responsive vs Mobile

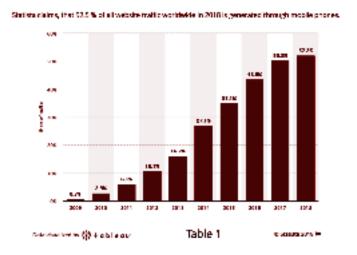
Companies planning their internet strategies today should focus on a mobile first responsive website approach and consider device applications a lower priority.

While mobile apps are generally faster and have the capacity to offer the most efficient user experience, with the cost of development and maintenance, the are best suited when there is a need to provide established users with high volume and complex transactions. A responsive website is better suited for "attracting new or occasional clients" (<a href="https://doi.org/10.1001/journal.org/10.1001/journa

In addition to development efforts, mobile apps require users to seek them out and load them to their device. Users with multiple devices will likely want to download to each device - more work for the user, and more work for the developer to be sure they are available where needed.

That said, we cannot ignore the growing dependence on mobile devices to meet our daily search and transactional needs. Statisa, an online statistics and BI portal, reports that 52.2% of world wide web traffic in 2018 came from mobile devices (BELITSOFT, see table 1).

Companies charting their internet strategies will want to consider *first contact* and the power of internet searches which "continues to dominate <u>conversion activity</u>" (<u>Christy Olson</u>). The need for a great "all device"



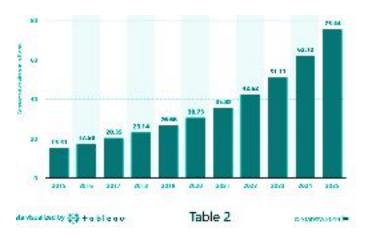
experience that is not dependent on application download is paramount for attracting new customers and accommodating the needs of regular and casual customers.

For those of us that have grown through the online and mobile experience, we need to get past the vision of clunky mobile websites of yesteryear. Responsive websites of today create excellent user experiences. CSS & HTML have evolved to provide the tools to create user experiences that "respond" to a variety of device sizes. True, the upfront effort is greater than a simple website accommodating only one screen size, but the long term benefits more than compensate the additional cost.

As we become increasingly adept at web design, ux design, and responsive abilities, we can create "one site" experiences to accommodate the volume user also. Taking a "mobile first" approach is core to successful web strategy. In addition to assuring great mobile experiences, it

offers an advantage in helping us get to the core of the user experience and the priorities for our website design. "By addressing mobile's limitations right at the beginning, you will have designed the essential skeleton of your UX and can then work your way up, adding details for more robust, larger formats." (Mariana Do Vale)

It's not just about phone vs computer today. The difference between devices, and the use of devices is morphing. We have "laptops" that are more like tablets, and "phones" are almost as big as some early tablets. Given the resolution and clarity on screens for phone devices, and pushing the display area to the edge of the device, there's much more real estate on a phone today than yesteryear.



Device convergence, and the explosion of new specialized devices will continue to grow exponentially. Statista estimates that the Internet of Things (IoT) connected devices will grow from 23.14 billion in 2018 to 75.44 billion in 2025 (Statista, see table 2). Imagine the number of device interfaces that will need to be accommodated.

Responsive websites provide a way to manage these changes. I'd like to note

also that they are more flexible than adaptive websites (Berry). Newer CSS allows text and even images² to adjust size on a sliding scale as screen resolution and size change, instead of just incrementally (like adaptive) when specified resolution or size targets are met. Considering the plethora of devices that are being introduced and are yet to be envisioned and developed, responsive is compelling functionality.

One advantage of mobile applications is speed. 5G wireless networks are near here. %G speeds will transform mobile platforms from "dial-up" equivalent to mobile broadband service with **minimum** peak download speeds at 20 times that of 4G (<u>Tim Fisher</u>). Performance concerns will cease to be important. Strategies are about planning, and planning is for the future. Plan for the future and focus on website functionality and design that can morph your website to the device size and resolution matching your customers realtime current need.

My own perspective is that mobile applications are a dying breed. In the old days, we had terminals to access the power of mainframe computers. With the rise of PCs, we found client server architecture and installed desktop applications to harness backend capabilities to front end GUI displays that freed the end user of archaic commands inherent of mainframe terminals.

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¹ I put "phone" in quotes because I often wonder why we continue to use this antiquated term for such a versatile device that we use more often for other functions than phone calls.

² SVG are vector images that can be formatted with CSS.

Internet browser essentially freed us from this cumbersome architecture, and like the mainframe/terminal architecture, removed the need to distribute software to individual devices. While mobile applications have done a good job of filling a void in device capability giving browser capabilities a chance to catch up, their usefulness has, and will continue to, diminish. Browsers and websites offer superior long term returns monetarily, as well as for asset management (less assets to manage) and user satisfaction (immediate access, no download, great UX).

While organizations may want to include mobile application development in their strategies to acquiesce their power users in the near term, I recommend planning strategies for the future. Place responsive websites with a mobile first perspective foremost in planning, and keep mobile applications secondary as long as there is a benefit for keeping them at all.

Works Cited

(<u>reference</u>, <u>digital format</u>)

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Table of Illustrations

Table 1: *BELITSOFT:* "RESPONSIVE WEBSITE VS MOBILE APP", https://belitsoft.com/apps-development-services/responsive-website-vs-mobile-app, Blog writers et al, dated 10 July 2018. Accessed 06 Feb 2019; "*Percentage of all global web pages served to mobile phones from 2009 to 2018*"

Table 2: Statisa: "Internet of Things - number of connected devices worldwide 2015-2025", https://www.statista.com/statistics/471264/iot-number-of-connected-devices-worldwide/, dated 2019, accessed 06 February 2019; "Internet of Things (IoT) connected devices installed base worldwide from 2015 to 2025 (in billions)"

Internet Searches

I thought it would be helpful to provide a list of the internet search criteria I used in researching this article.

- how do responsive websites compare to mobile applications
- responsive websites vs mobile apps
- advantages of mobile applications over websites
- advantages of websites over mobile applications
- impact of web searches in modern day
- impact of responsive websites in attracting new customers
- mobile first strategy advantages and disadvantages
- 5g speed vs 4g