

The mobile resolutions to be aware of when designing

(/author/davekearney/)

By Dave Kearney (/author/davekearney/) on Aug 31, 2015

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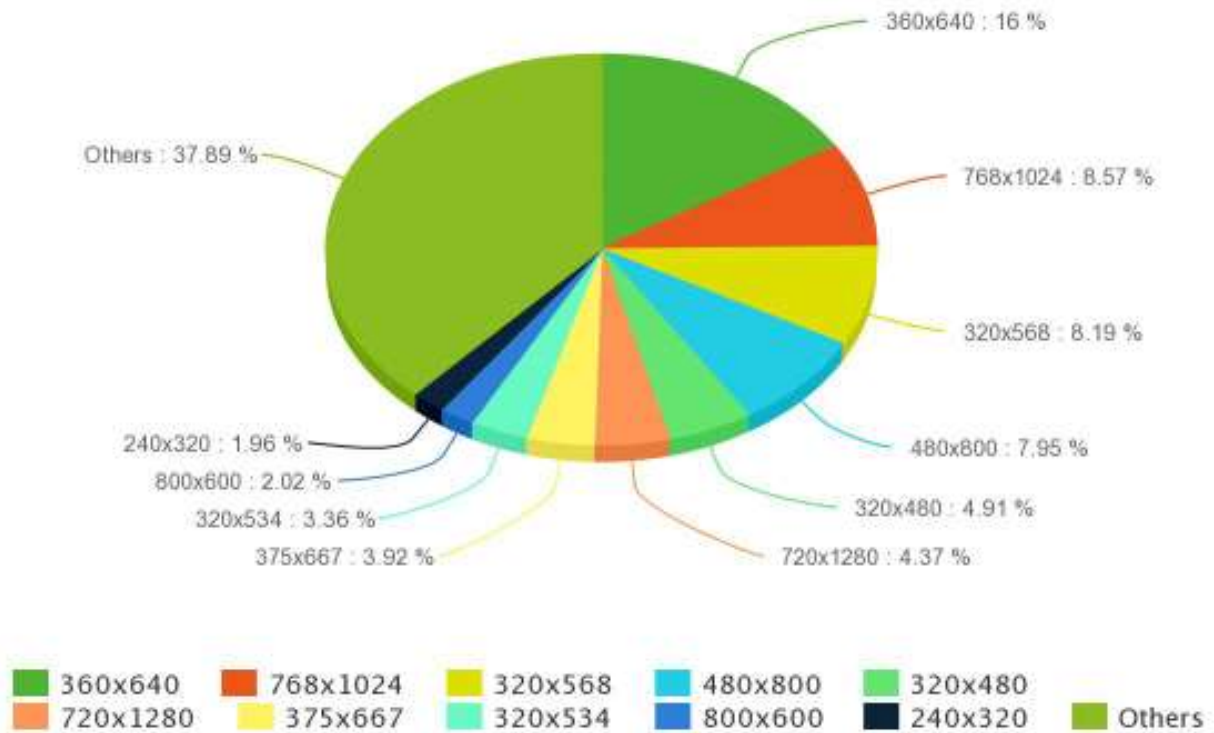
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We've just spent a week investigating the device resolutions in use around the world between May-July 2015 for our device list in Fluid UI. We thought it would be handy to share this research on our blog for everyone to see.

The following graphics and tables detail all of the current common resolutions for devices, their point/density pixel resolution and various other details along with the market share for those devices. We hope it will be useful to use as a baseline for working on cross platform/device projects and will help to make sure your work is as accessible, usable and beautiful as possible.

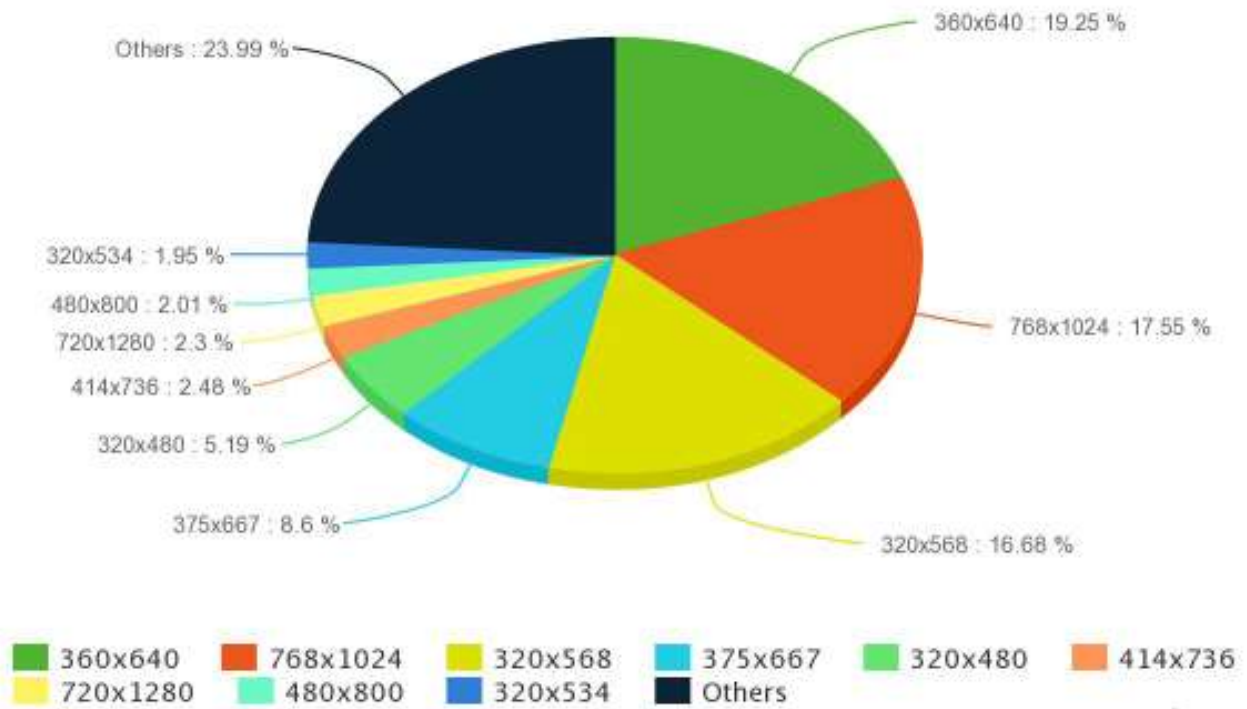
Global web usage by resolution (phone and tablet) May-July 2015



Source: statcounter.com (<http://gs.statcounter.com/#mobile+tablet-resolution-ww-monthly-201505-201507>) - Download the full csv (http://gs.statcounter.com/chart.php?device=Mobile%20%26%20Tablet&device_hidden=mobile%2Btablet&multi-device=true&statType_hidden=resolution®ion_hidden=ww&granularity=monthly&statType=Screen%20Resolution®ion05&toMonthYear=2015-07&csv=1)

NA web usage by resolution (phone and tablet) May-July 2015

North America is a little more predictable, but not by much, with three resolutions having a market share of above 15% and two others above 5%. The prevalence of iOS device resolutions is also far more noticeable in the North American market.



Source: statcounter.com (<http://gs.statcounter.com/#mobile+tablet-resolution-na-monthly-201505-201507>) - Download the full csv (http://gs.statcounter.com/chart.php?device=Mobile%20%26%20Tablet&device_hidden=mobile%2Btablet&multi-device=true&statType_hidden=resolution®ion_hidden=na&granularity=monthly&statType=Screen%20Resolution®ion:05&toMonthYear=2015-07&csv=1)

iOS



The impact of iPhone 6 +

Apple are famous for putting a lot of effort into keeping their phones as simple as possible to design for. But with the iPhone 6 and 6+ they have finally given in to market pressures to launch a larger device, resulting in the first real fragmentation of screen sizes on the platform.

iPhone

Model	DP	PPI	Ratio	Viewport
iPhone 2g, 3g	320 x 480	163 PPI (@1x)	3:2	320 x 480
iPhone 4	320 x 480	326 PPI (@2x)	3:2	640 x 960
iPhone 5	320 x 568	326 PPI (@2x)	16:9	640 x 1136
iPhone 6	375 x 667	326 PPI (@2x)	16:9	750 x 1334
iPhone 6+	414 x 736	401 PPI (@3x)	16:9	1080 x 1920

iPad

Model	DP	PPI	Ratio	Viewport
iPad + Mini	768 x 1024	132 PPI (@1x)	4:3	768 x 1024
iPad (Retina)	768 x 1024	264 PPI (@2x)	4:3	1536 x 2048

Full resolution assets for the iPhone 6+ are created at 1242x2208 and scaled down to 1080x1920 by the phone itself when displaying. For more information, see here (<http://blog.fluidui.com/comparing-designs-flows-for-ios-and-android-apps/>).

Android

Android screen density distribution is of course a bit more varied. The following table details the various Android models which hold relatively large market share along with their screen resolutions.

Top selling Android phones

Model	DP	Density	PPI	Ratio	Viewport
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Galaxy SIII	360 x 640	200% (XHDPI)	306 PPI	16:9	720 x 1280
Galaxy SII	320 x 533	150% (HDPI)	217 PPI	5:3	480 x 800
Google Nexus 4	384 x 640	200% (XHDPI)	318 PPI	5:3	768 x 1280
Galaxy Nexus	360 x 640	200% (XHDPI)	316 PPI	16:9	720 x 1280
Galaxy SIV	360 x 640	300% (XXHDPI)	441 PPI	16:9	1080 x 1920
Galaxy Note II	360 x 640	200% (XHDPI)	267 PPI	16:9	720 x 1280
Galaxy S Plus	320 x 533	150% (HDPI)	233 PPI	5:3	480 x 800
Galaxy S	320 x 533	150% (HDPI)	233 PPI	5:3	480 x 800
Galaxy Note	400 x 640	200% (XHDPI)	285 PPI	8:5	800 x 1280
HTC One	360 x 640	300% (XXHDPI)	469 PPI	16:9	1080 x 1920
Droid Razr	480 x 853	150% (HDPI)	312 PPI	16:9	720 x 1280
Droid 3 & 4	640 x 360	150% (HDPI)	274 PPI	16:9	960 x 540
Droid Razr Maxx	640 x 360	150% (HDPI)	256 ppi	16:9	540 x 960
HTC Desire	240 x 400	200% (HDPI)	252 ppi	5:3	480 x 800

Source: screensiz.es (<http://screensiz.es/phone>)

Windows Phones and Tablets



Late to the party and with a fairly small overall footprint, windows screens are mostly limited to the Microsoft/Nokia released devices, which come in two broad resolutions - 480x800 (5:3) and 480x854 (16:9). Tablet resolutions vary a good bit more and these often blur the lines between laptops running the same windows operating system.

Windows Phones

Model	PPI	Ratio	Viewport	Market Share
Nokia Lumia 520	233 PPI	5:3	480 x 800	23.2%
Nokia Lumia 630	221 PPI	16:9	480 x 854	9.7%
Nokia Lumia 625	199 PPI	5:3	480 x 800	7.1%
Nokia Lumia 530	245 PPI	16:9	480 x 854	5.1%

Windows tablets

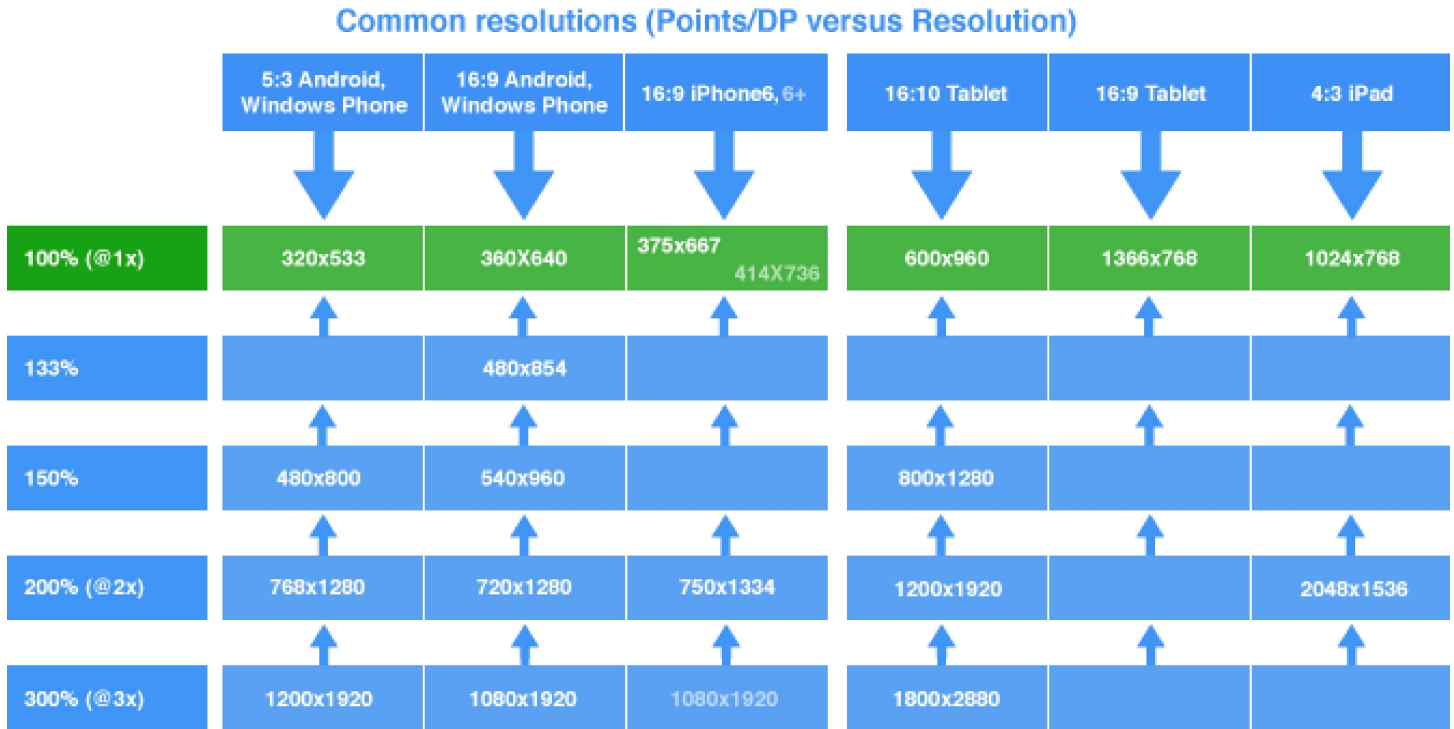
Windows tablet resolutions are more varied, with the following all having some penetration:

1024 x 768	1280 x 800	1280 x 1024	1366 x 768	1920 x 1080	2560 x 1440
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Overall

There is less fragmentation in the environment than originally anticipated and many of the device resolutions, while constantly increasing in terms of total pixels, are maintaining the same aspect ratios of their predecessors. Combined with a DP/Point based approach to designing, it should remain possible to deliver content, particularly on web without additional complications.

Below is our output graph of device resolutions along with their DP / point equivalent which we will be updating Fluid UI with. We look forward to seeing you there.



Bonus content: The wearables

We don't have much to add here and the sales and growth of this market is still to be deeply understood, but we include them as we've done the research for our Fluid UI (<https://www.fluidui.com/>) device list as we have libraries for them.

Wearables

Model	Viewport	PPI
Apple Watch 38mm	272 x 340	326 PPI @2x
Apple Watch 42mm	312 x 390	326 PPI @2x
Pebble Original and steel Monochrome	144 x 168	176 PPI
Pebble Time Color display	144 x 168	182 PPI
Galaxy Gear	320 x 320	275 PPI
Android Wear	320 x 320	348 PPI

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How to Optimize the Design Phase with Rapid Prototyping and Usability Testing

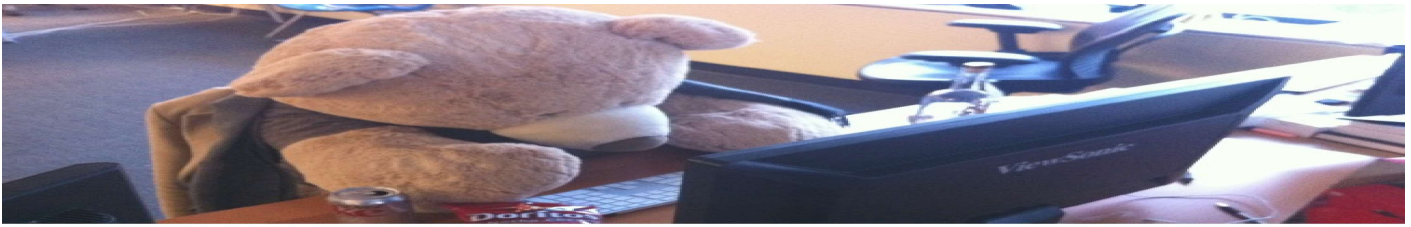
(/how-to-optimize-your-design-phase-with-rapid-prototyping-and-usability-testing/)



(/dreams-creativity-and-how-they-are-connected/)

Dreams, Creativity and how they are Connected

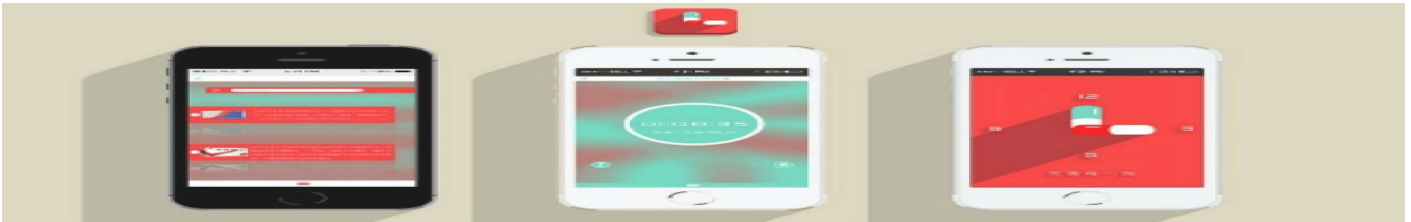
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How to do customer support in a small company

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9 Tips to Optimize the UI of Mobile Apps

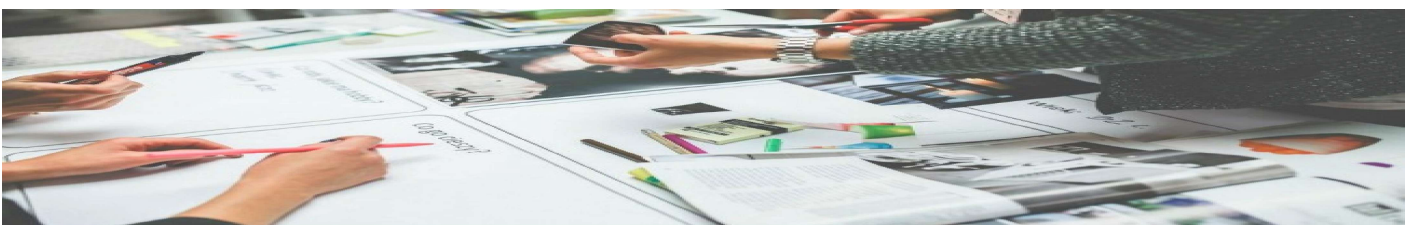
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How User Personas can make your Prototypes Better

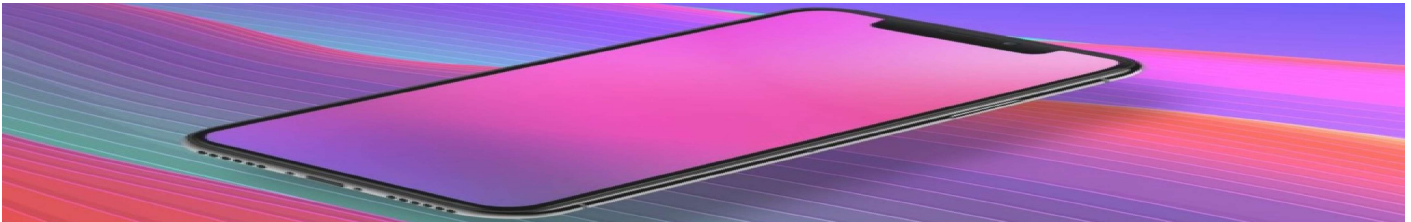
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5 Best Mobile App Design Trends for 2018

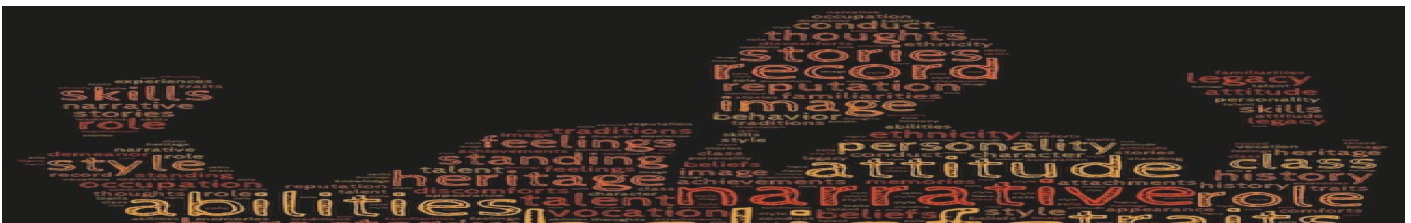
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9 App Design Tips for the iPhone X

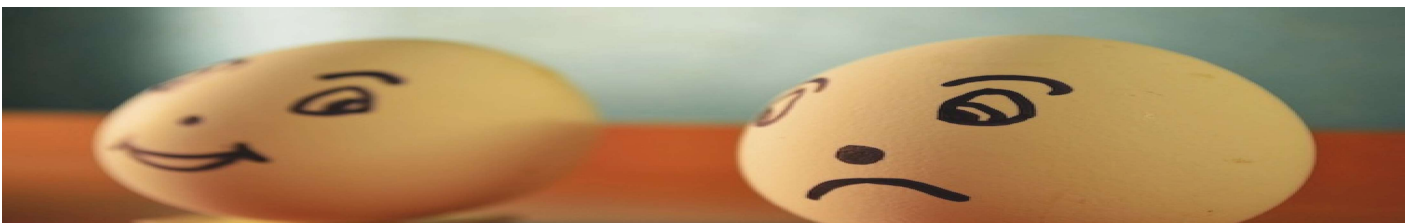
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Cyberpsychology and UX 3: Preventing Cognitive Overload

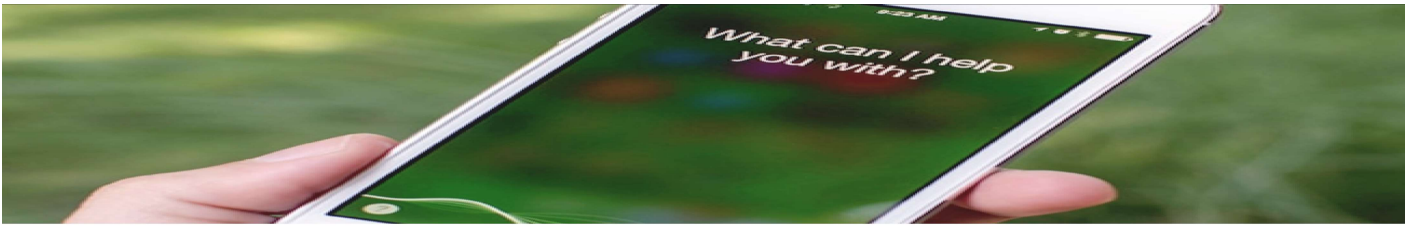
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Cyberpsychology and UX 2: The User's Online Self

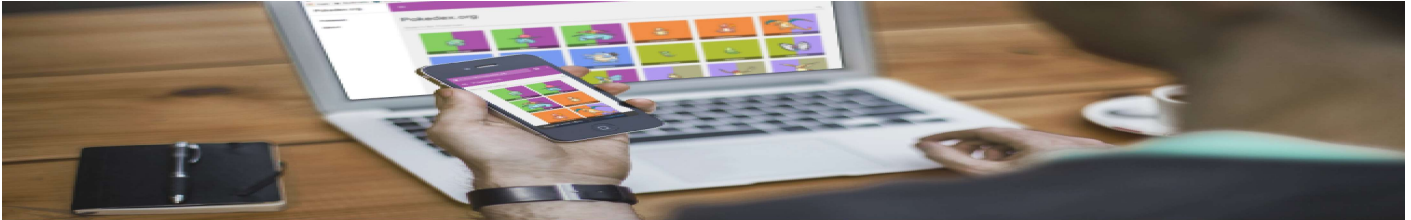
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Everything you need to design Voice UI

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6 Tips for Designing Progressive Web Apps

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