



Community Experience Distilled

Mobile First Bootstrap

Develop advanced websites optimized for mobile devices using the Mobile First feature of Bootstrap

Alexandre Magno

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About the Author

Alexandre Magno has worked for 10 years as a web developer, and is currently working as a software engineer at globo.com. He is a very active contributor in the open source community with plenty of projects and acts as a jQuery evangelist and a responsive design missionary. As a multidisciplinary developer, he has strong experience in a wide range of server-side frameworks and CMS such as Ruby on Rails, Django, WordPress, and exploring Node.js. He has developed many libraries that are widely used at globo.com, and was one of the first developers to develop mobile websites with a responsive design in the company he worked at. He is an active contributor of Twitter Bootstrap and the creator of one of its branches, the Globo Bootstrap, which is the first translation of Bootstrap to Portuguese, and also developed some components used in globo.com.

He is very passionate about web development, and he writes about it in his blog at alexandremagno.net. He has already contributed in the publishing of a web magazine about jQuery UI and has even made presentations in some technical events, such as the International Free Software Forum (FISL). Writing this book for him is a great step further, after these achievements.

Besides technology, he is a musician and song writer too. He likes to remember every moment of his life with a music lyric. At this moment, for example, the verse would be "We are the champions, my friend".

Acknowledgements

It was a long journey to get this project into reality, and I would like to thank the team behind this book's publication for their help.

But I would never forget to thank my mom, my family, and friends that support me all the time. I'm sure they're all very excited about this book. Although some of the people who are close to me have no idea what exactly this book is for (for them, I'm just the "nerd guy" or the "geek"), they're still interested in checking it out. It's pleasant to spread the technical knowledge for everyone with a strong demonstration through this book about how the Web is changing society and people's lives. This reason is far enough to make me proud to write this book.

It was very enjoyable to get involved in a new web paradigm and write my piece of contribution to make it a part of the whole new world of web technologies across devices. Mobile First and Bootstrap are powerful sources to make a developer, a designer, or a curious advanced developer get into the brand new mobile web. After this book, you will think about the Web in a different way, and I'm guiding you to meet the new era that will change our minds from fixed width to fluid. So, let's make your mind flexible to think about how to apply Bootstrap correctly with the Mobile First approach and make you capable of doing amazing mobile web projects.

About the Reviewers

Julien Renaux is a software engineer specialized in frontend development. Currently working in France, Julien worked in four continents for companies such as eBay, in which he used Bootstrap since the first release in 2011. He is web-passionate and a JavaScript-aholic, and he loves to learn new technologies and share his experience and enthusiasm on his blog: <http://julienrenaux.fr>.

Felipe Silva is originally from Rio de Janeiro, and now lives in Brooklyn. He has more than seven years' experience in frontend development. He is now a part of the video team at The New York Times as a senior JavaScript engineer. Previously, he worked at Huge, a digital agency based in Brooklyn, and during that time, he built several responsive products for companies such as Four Seasons, GE Capital, Target, and others. Back in Brazil, he used to work for globo.com, the Internet arm of Globo, which is the largest media conglomerate in Latin America.

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Preface

We are living in a rapidly changing time because of the way we use the Web. To follow up on this currently changing paradigm, the development cycle finds its way to follow this new scenario. The frontend community is building amazing tools to make it possible to deal with so many changes. In the past, we had to deal with browsers that did not respect the standards. Now, we are dealing with new devices with a wide range of features. The Web is going mobile. With so many limitations on one side, and the power of flexibility on another side, the mobile and tablet just cannot be a substitute for the huge and wide desktop screens. The mobile needs are complementary to the desktop's standard nature. On the other hand, there's a brand new opportunity with its mobile use and simplicity that makes us see an ongoing challenge to expand our business. This way we have a presence in the ever-growing online market. The Web is not only limited to a desktop anymore. We have to think wider.

The most famous frontend frameworks also have to undergo a deep change to meet this demand. They are radical. In the new Bootstrap release, they decided to get their learning from the oldest version and redesign from scratch, but the focus is now on Mobile First as a user environment. Why do you have to focus on the mobile environment now?

Well, in the new paradigm, we will just get a Mobile First framework for simple development like we used to. We have to follow it up and see how powerful an online product cross device with no disturbing complexity can be, even though it sounds complicated.

We know that Bootstrap is not a silver bullet, but it's a great option to start your development cycle for Mobile First. It makes things simple, and we should know how it does it, because this Version 3 is based on a lot of contributions from Bootstrap developers. This is a strong reason for you to follow the same principles.

You may have already used Bootstrap or visited sites that use it. It's not hard to identify Bootstrap's basic template in a lot of websites around here, for example, the documentation APIs of open source projects. Research of the meanpath shows that Bootstrap is present in 1 percent of the 150-million websites worldwide, powering 1 percent of the Web (<http://blog.meanpath.com/twitter-bootstrap-now-powering-1-percent-of-the-web/>). So, we know the power of its use and the amazing things we can do, but now we can do even more, and you have a chance to explore its new capabilities.

In this book, we will not just look at the Bootstrap changes, but also cover the mindset that makes us think mobile and go through an efficient multidevice development. We will develop a sample short message app that will be called Cochichous, which users can check the nearest messages sent by other users using Twitter API. We will explore HTML5 and JavaScript capabilities, as well the grid and the Bootstrap plugins.

Besides that, we will also discover what has changed with this new important release.

What this book covers

[Chapter 1](#), *Bootstrap 3.0 is Mobile First*, introduces you to the Mobile First development, and makes you understand why Bootstrap was redesigned to this new approach and the reasons we should take care of. We will get a little vision about the responsive design and how Mobile First works with it. Then, we will get in contact with Bootstrap documents to start checking the new documentation and make tests to familiarize ourselves with a Mobile First website.

[Chapter 2](#), *Designing Stylesheet in Bootstrap 3*, gets us started with the CSS structure and the main grid changes, as well as showing us an example on how to make decisions about breakpoints using Bootstrap grid classes. We will get an overview of how the navigation deals with Mobile First, and how to get forms optimized to different devices.

[Chapter 3](#), *JavaScript, the Behavior in Mobile First Development*, will lay the foundation of stylesheets, and we will get in touch with JavaScript. In Bootstrap, this is represented by JavaScript plugins using jQuery that's almost intact in this version. It's a great opportunity to learn how to adapt the Bootstrap JavaScript plugins to work with a new device's capability and how to explore its pattern to build your own plugins. There's a clear explanation about progressive enhancement that we probably have already heard before, but now we are focused on applying Mobile First techniques.

[Chapter 4](#), *Getting it All Together – a Simple Twitter App*, will get all the pieces already learned to make a real Mobile First sample and a simple product to allow us to have an overall idea of how to develop a Mobile First new product from scratch. We start to deal with the capability offered by the mobile browser to deliver a better experience on mobiles for our users. Then, we get all the points that surround the decision about a web app or a native app.

[Chapter 5](#), *Performance Matters*, will cover what needs to be done to have our mobile experience optimized, how this optimization affects the accuracy still present in the desktop, and how the Mobile First development can be a powerful tool to make our website faster. We will learn three main techniques: optimizing images, loading components on demand, and the use of fonts to render icons.

What you will need for this book

You will just need a computer and an Internet connection. Use your favorite development tool that you are already using to develop your HTML/CSS/JavaScript layers from your application. It would be good to have a mobile phone to test your projects and feel how your site works on a mobile.

Who this book is for

This book assumes that you are already familiar with Bootstrap to understand the huge differences in this third version. But, if you're discovering Bootstrap right now, don't worry, just get into the documents and use the book as a guide to use Mobile First development with Bootstrap. If you are already familiar with mobile web app development, this book is helpful in allowing you to use this knowledge with Bootstrap as a frontend framework for your Mobile First needs. Bootstrap is for everyone, so if you are familiar with frontend technologies such as JavaScript, HTML, and CSS, you will have a chance to customize and use it as a strong frontend tool or even use Bootstrap as the style guide for your projects in your company. But, if you are not familiar with frontend, for example, if you are a designer, Bootstrap could be helpful, and you just need notions of HTML to use Bootstrap for your websites. This is possible just with the lessons learned from the book and the Bootstrap documentation.

Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

Code words in text are shown as follows: "The following lines of code apply a conditional statement to the `$(window)` object that checks its width against a value greater than 960 and then makes a loop in each image to change the attribute source accordingly with this condition."

A block of code is set as follows:

```
if($(window).width() > 960) {
    $('img').each(function(){
        $(this).attr('src', $(this).data('desktop'));
    });
}
```

Any command-line input or output is written as follows:

```
grunt
```

New terms and **important words** are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in the text like this: "In your account that you just created, go to your account menu and click on **Create a new application**".

Note

Warnings or important notes appear in a box like this.

Tip

Tips and tricks appear like this.