



# Beginning Adobe Experience Design

Quickly Design and Prototype  
Websites and Mobile Apps

—  
Rob Huddleston



Apress®

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Rocklin, California, USA

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*To Kelley, Jessica, and Xander with all my love*

# Contents at a Glance

<b>About the Author .....</b>	<b>xiii</b>
<b>About the Technical Reviewer .....</b>	<b>xv</b>
<b>Acknowledgments .....</b>	<b>xvii</b>
<b>■ Chapter 1: Overview of the Web and Mobile Design Process .....</b>	<b>1</b>
<b>■ Chapter 2: Introduction to Adobe Experience Design .....</b>	<b>7</b>
<b>■ Chapter 3: Using XD's Drawing Tools.....</b>	<b>23</b>
<b>■ Chapter 4: Working with Text .....</b>	<b>51</b>
<b>■ Chapter 5: Working with Images .....</b>	<b>69</b>
<b>■ Chapter 6: Creating New Pages with Artboards .....</b>	<b>95</b>
<b>■ Chapter 7: Organizing Content Using Content Grids .....</b>	<b>105</b>
<b>■ Chapter 8: Designing for Mobile .....</b>	<b>143</b>
<b>■ Chapter 9: Creating Interactive Prototypes .....</b>	<b>153</b>
<b>■ Chapter 10: Next Steps .....</b>	<b>167</b>
<b>Index.....</b>	<b>175</b>

# Contents

<b>About the Author .....</b>	<b>xiii</b>
<b>About the Technical Reviewer .....</b>	<b>xv</b>
<b>Acknowledgments .....</b>	<b>xvii</b>
<b>■ Chapter 1: Overview of the Web and Mobile Design Process .....</b>	<b>1</b>
The Challenges of Designing for the Web.....	1
The Web Wasn't Designed for Design.....	1
Designing for Screens .....	2
Designing for Interaction .....	3
Mobile App Design.....	3
Using Comps and Prototypes to Design Live Sites and Apps .....	4
Summary.....	5
<b>■ Chapter 2: Introduction to Adobe Experience Design .....</b>	<b>7</b>
Adobe XD in the Workflow .....	7
Downloading and Installing Adobe XD.....	8
New Document Setup.....	14
The Design Workspace in Adobe XD.....	15
The Prototype Workspace.....	19
Using the Keyboard .....	19
Basic Keyboard Shortcuts .....	19
Selecting Tools.....	20

Switching Workspaces .....	20
Zooming With the Keyboard.....	21
Other Useful Keyboard Commands.....	21
<b>Summary .....</b>	<b>21</b>
<b>■ Chapter 3: Using XD's Drawing Tools.....</b>	<b>23</b>
<b>Adding Shapes .....</b>	<b>23</b>
Rectangles.....	23
Ellipses and Lines.....	26
<b>Shapes and the Properties Panel .....</b>	<b>27</b>
Alignment .....	27
Smart Guides .....	28
Combining Objects.....	28
Size and Position .....	28
Appearance.....	29
<b>Stacking Order .....</b>	<b>32</b>
Using the Context Menu .....	32
Mac Menus .....	33
<b>Changing Opacity .....</b>	<b>34</b>
<b>Working with Layers.....</b>	<b>34</b>
Changing Stacking Order with Layers .....	35
Selecting and Grouping Objects .....	35
Renaming Objects .....	36
Locking and Hiding Layers .....	36
<b>Combining Objects into Symbols.....</b>	<b>37</b>
Using Symbols .....	38
Editing Symbols.....	39
Deleting Symbols.....	39

Drawing Objects with the Pen Tool.....	39
Straight Lines .....	39
Curves.....	41
Modifying Paths.....	42
Putting It Together .....	44
Drawing the Header and Footer.....	45
Creating the Navigation Bar.....	46
Summary .....	49
<b>■ Chapter 4: Working with Text .....</b>	<b>51</b>
Beginning a Logo.....	51
Understanding Fonts on the Web .....	52
Downloading a Web Font from Google .....	53
Installing Fonts on Windows.....	56
Installing Fonts on a Mac.....	56
Using New Fonts in XD .....	57
Formatting Text .....	57
Font Size.....	57
Font Styles.....	58
Alignment .....	58
Character and Line Spacing .....	58
Appearance.....	58
Text Best Practices .....	59
Adding More Text to the Design.....	59
Finalizing the Logo .....	60
Adding Navigation Text .....	62
Add a Copyright Notice to the Footer.....	66
Summary .....	67



<b>■ Chapter 5: Working with Images .....</b>	<b>69</b>
Image File Types.....	69
Importing Images .....	70
Importing on Windows.....	70
Importing on a Mac.....	70
Importing with Drag and Drop .....	70
Importing with Copy and Paste.....	70
Importing the Main Images to the Design .....	70
Scaling and Rotating Images.....	74
Scaling the Main Images .....	75
Working with SVG.....	78
Finishing the Navigation Bar.....	85
Creating Calls to Action .....	88
Summary.....	94
<b>■ Chapter 6: Creating New Pages with Artboards .....</b>	<b>95</b>
Artboard Basics .....	95
Renaming Artboards.....	95
Creating a New Artboard .....	96
Selecting, Resizing, and Moving Artboards.....	98
Duplicating Artboards .....	99
Using Artboards to Set Up Designs for Mobile Devices .....	101
Summary.....	103
<b>■ Chapter 7: Organizing Content Using Content Grids .....</b>	<b>105</b>
Creating Placeholders for a Grid .....	105
Creating a Repeat Grid .....	111
Adding Padding to a Grid.....	113

Adding Content to a Grid .....	116
Manually Updating Placeholders .....	116
Automatically Updating Placeholders .....	116
Formatting Placeholders That Contain Data .....	125
Fixing Incorrect Placeholder Replacement .....	136
Creating a Second Page with a Repeat Grid .....	136
Deleting Extra Placeholders .....	140
Summary .....	142
<b>■ Chapter 8: Designing for Mobile .....</b>	<b>143</b>
Responsive Web Design Overview .....	143
Creating App Designs .....	144
Creating Mobile Web Designs .....	145
Virtual Keyboards .....	147
The Hamburger Menu .....	147
Using a UI Kit .....	148
Summary .....	151
<b>■ Chapter 9: Creating Interactive Prototypes .....</b>	<b>153</b>
Switching to the Prototype Workspace .....	153
Creating Links .....	154
Interaction Limitations .....	156
Previewing Prototypes .....	158
Desktop Preview .....	158
Mobile Preview .....	161
Share Online .....	163
Using Prototypes for Usability Tests .....	166
Summary .....	166

■ <b>Chapter 10: Next Steps</b> .....	<b>167</b>
Exporting Assets.....	167
Exporting All Artboards.....	172
Working with Developers .....	172
Summary.....	173
<b>Index</b> .....	<b>175</b>

# About the Author

**Rob Huddleston** has been designing and developing web pages for almost 25 years, and has been teaching on those topics for over 15 years. He is currently on the Design Faculty at the Art Institute of California, where he teaches web and graphic design. He is the author of nine previous books, and currently also writes as a Core Contributor for GeekDad.com. He lives in Northern California with his wife and two children.

# About the Technical Reviewer

**Jim Babbage's** two passions—teaching and photography—led him to a career in commercial photography. With the release of Photoshop 2.5, Jim became involved in the world of digital imaging, and he soon began designing for the web in addition to taking photographs. Jim is a regular contributor to [Community MX](#), where he has written articles and tutorials on Fireworks, Dreamweaver, Photoshop, and general web and photography topics. He has authored several books including *Adobe Fireworks Classroom in a Book for CS4 and CS5* (Adobe Press), and *Adobe Fireworks CS4 How-Tos: 100 Essential Techniques* (Adobe Press). Jim also has several Fireworks [videos](#) available on Lynda.com. He teaches imaging, web design, and photography at Centennial College, and web design at Humber College. He is a partner at [Newmedia Services](#), and has been a guest speaker at TODCon and a presenter at Adobe MAX.

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# CHAPTER 1



# Overview of the Web and Mobile Design Process

When building a website or mobile application, content is king. You might be able to convince people to visit your site once or download your app, but without engaging, relevant content, they aren't going to come back to your site, or will likely quickly uninstall your app.

But how you present that content matters as well. And the presentation of that content is your design. A well-designed site or app is going to be easier and more enjoyable to use than a poorly designed site or app.

Design matters. But design is also hard. It takes years of study to master the intricacies of layout, typography, color theory, and the rest. It also takes practice. Lots and lots of practice. As with all artists, most of what designers produce is not great. But it's only by working through those bad designs that we can discover the great ones.

While this book focuses on a single design tool, Adobe XD, understanding the process of designing for the web and for mobile is an important first step. In this chapter, we will examine the basics of designing websites and apps, focusing on the challenges and potential solutions designers face.

## The Challenges of Designing for the Web

From its earliest days, the web has presented designers with some unique challenges. Many of these have been solved in the roughly quarter century that designers have been working on the web, but many are potentially unsolvable.

### The Web Wasn't Designed for Design

The first challenge: design wasn't a consideration when the web was built. Tim Berners-Lee, the man who invented the web, was a physicist who created the web primarily as a way for scientists to be able to better collaborate on the internet. The web wasn't really intended as a way to sell books or connect with long-lost high school friends or see lots and lots of pictures of cats.

Because of this, solutions for designing for the web had to be added on later. First, there were attempts to handle this with new, mostly horrible HTML tags and attributes like `<font>` and `bgcolor`. And there were attempts to create complex layouts by forcing HTML tags that were never intended for layout—tables—to (badly) service that need. Later, all of that awfulness was replaced by Cascading Style Sheets, or CSS. Finally, we had a language specifically created to allow designers to make web pages pretty (and more usable).

But even CSS has a major flaw (well, to be honest, it has a lot of flaws, but let's just focus on one for the moment): it's code. To be clear, I have nothing against code. I consider myself to be much more of a programmer than a designer. But designing in code is tough. It takes a lot of work, it's hard to make quick changes, and it requires that you think about what something will look like without being able to directly see what it will look like until a bit later.

There are certainly folks who have mastered this skill and do what the web community refers to as “designing in the browser,” but they are the exception.

Adobe XD is specifically designed to help fill this need, by allowing you to create designs in a more traditional design environment, and without ever requiring that you touch any code at all.

## Designing for Screens

When print designers create flyers for clients, they have total control over what those flyers will look like. They know that every time a flyer is printed, it will be a particular size. They know that every time it is printed, it will use specific colors (often printed with specific inks). They know it will be printed on an exact weight of paper with a specific brightness.

This kind of control is pretty great, and it's the first, and often hardest, thing that print designers have to learn to give up when they begin designing for the web, because for the most part, the way our web pages will look on our users' screens is out of our control.

We cannot know what size screen each user may have. When I began designing for the web in the mid-1990s, designers had to worry about a few screen resolutions on maybe a dozen or so screen sizes. The web was confined to desktop and laptop computers. We had to worry about two operating systems and basically two browsers.

But today, there are not only dozens and dozens of screen resolutions, but literally hundreds of screen sizes. Today, we can't know if a user is going to view a web page on their 65-inch television or their 27-inch computer monitor or their 4-inch smartphone. (Although we can know that more people in the world access the web on mobile devices than on desktop and laptop screens).

We cannot know how big our page will be. We cannot know how the screen is going to handle color. Our users may be on a desktop running one of four or five versions of Windows, or a laptop using one of several versions of macOS/OSX. They might be on an iPhone using iOS 8, or an iPad using iOS 6, or on an Android phone running Jelly Bean, Kit-Kit, Lollipop, Marshmallow, Nougat, or Oreo. That phone might have a 3-inch screen with barely 400 pixels of resolution or a high-density 5-inch screen with thousands of pixels.



The monitor might be color corrected to render bright, beautiful colors, but odds are good it isn't. The user might have the brightness turned down on their monitor to reduce glare and eye strain, making the colors on our site dull and boring, or they might be on their phone late at night with the brightness turned all the way up (hopefully not disturbing anyone else in the room).

And they might be viewing our site on Internet Explorer, or Microsoft Edge, or Google Chrome, or Mozilla Firefox, or Apple Safari. They might be on Android's slightly different version of Chrome, or they might have gone into the Google Play Store and downloaded some other browser you've never even heard of.

The point of all of this is that we have absolutely no control over how our web page is seen by our users. This presents, without any question, the biggest design challenge for the web: how do you create something that is beautiful and usable with all of these unknown factors at play?

As we will see in Chapter 6, Adobe XD allows you to create your designs on any screen size you want, allowing you to think through this toughest of design challenges.

## Designing for Interaction

Another thing that separates web design from print design is interaction. While it can be argued that people do interact with print—a good designer is certainly going to take into account how a customer might move from one page to the next in a catalog—interaction design did not really become a thing until the web and mobile apps came along.

Interaction design is thinking not just about how a particular page of a site looks and feels, but also about what happens when a user clicks a link to get from one page to the next. Interaction designers think and plan for what happens when a user clicks something on a page, or hovers their mouse over an element. They think about how drop-down menus should work.

All of this requires designing in an interface that allows you to see these interactions take place. While you can sort of simulate some of these things in traditional design tools, Adobe XD's prototyping tools, which we will explore in Part III of this book, are designed to allow you to work through interaction design issues and visualize potential solutions.

## Mobile App Design

Just as Tim Berners-Lee didn't envision the cat-obsessed environment he was creating with the web, Steve Jobs didn't think he was creating an entirely new industry when he released the first iPhone in 1997. Although smartphones had been around for a while, and the idea of running apps on those phones that were built just for that environment was likewise nothing new, the iPhone and the massive explosion of the use of smartphones created unexpected and unprecedented demand for apps.

Because many clients see an app as a logical extension of their overall digital strategy, the same designers who are being tasked with creating the look-and-feel of a company's website are often asked to create the look-and-feel of a company's app. In many ways, designing an app isn't all that different from designing a website. We must figure out solutions to all of the challenges previously mentioned regarding web design—multiple operating systems running on thousands of different screen sizes.

Apps generally provide us with the ability to tap into, and thus design for, device-specific features that may not be available on a website. For instance, an app might allow a user to take a picture of something on the phone's camera, and then somehow integrate that into the app's interface. So, the app designer needs to think about what the button to launch the camera will look like, what the interface will be when the phone returns control back to the app after having taken the picture, and how the user can make use of the picture in the app.

Regardless, the similarities between web design and app design are such that once you understand one, getting good at the other generally isn't too hard. And so, it makes sense that you can use the same tool for both. XD's mobile app tools will be visited in more detail in Chapter 8.

## Using Comps and Prototypes to Design Live Sites and Apps

Usually, the first time a client sees what their site or app will look like, it is in the form of a high-fidelity *comp*. This is a design that shows the client a faithful rendering of the page, with all the colors, type choices, and images in place.

For the past several years, Adobe Photoshop has been the go-to tool for many designers to create these comps. Comps are useful as a way to show non-designers your vision for the page, and Photoshop allows for this kind of rendering of a design. However, all the capabilities that allow Photoshop to do this were basically tacked on to the program after Adobe recognized the need to compete in this market. But as great as Photoshop is at a huge number of things, it has never been that great in creating web comps. The simple ability to show a design at different screen sizes is a very recent addition to the program.

But even comps rendered in a tool that specializes in creating web comps, such as Sketch, still have a big limitation: they lack interaction. It's fine for a client to see what a page looks like when it loads, and then, in a separate image, what it will look like when the drop-down menu expands over a portion of the page, but that's not nearly the same thing as letting the client actually click that menu item and experience that menu dropping down over the page. And this is where prototyping comes in.

A *prototype* takes the high-fidelity comp and adds some, or perhaps all, of the interactions, allowing the client to click around and test out the site or app as if it were already live and online (or installed on their device).

Neither a comp nor a prototype can substitute for the real thing, of course, particularly in cases where the content on the site will be generated by users, but before developers spend hours writing all the code, comps and prototypes allow both the designer and the client to make sure everything looks right and that most things are planned to work right.

Once that sign-off is complete, it's up to the developers to take the prototype and create the real site or app and take it live. And this is decidedly *not* what Adobe XD exists for. Over the years, attempts have been made to create tools that try to do it all: let designers create their vision through drawing tools, and magically translate those drawings into good, editable code. And to date, that isn't something that has ever really worked. So, in creating XD, Adobe has made the conscious decision to avoid this issue altogether. XD is not intended to be a tool to save developers from having to write code,

and more importantly, it isn't a tool for designers who want to be able to create live sites or apps without learning code. Instead, XD is purpose-built for designers to create a vision of what the final product should look like, and to share that vision with others. Later, the developers will go in and use totally different tools to make the site actually work or to publish the app.

## Summary

In this chapter, we've explored the basic concepts behind designing for the web. We looked at how the web didn't anticipate design, the challenges of designing for an unknowably huge array of screen sizes and resolutions, and designing for the interactivity that digital allows. We also examined a few of the concepts related to designing mobile apps.

In the next chapter, we will begin to explore Adobe XD itself.