

# Introduction

**W**orking with technology is a funny thing in that every time you think you have it cornered . . . blam! Something pops out of nowhere that leaves you at once both bewildered and excited. Web development seems to be particularly prone to such surprises. For instance, early on, all we had to deal with was plain old HTML, which, aside from the never-ending table-wrangling, was easy enough. But soon, the simple web site began to morph into a complex web application, and accordingly, scripting languages such as PHP became requisite knowledge. Server-side development having been long since mastered, web standards such as CSS and XHTML were deemed the next link in the Web's evolutionary chain.

With the emergence of Ajax, developers once again find themselves at a crossroads. However, just as was the case with the major technological leaps of the past, there's little doubt as to which road we'll all ultimately take, because it ultimately leads to the conclusion of clicking and waiting on the Web. Ajax grants users the luxury of accessing desktop-like applications from any computer hosting a browser and Internet connection. Likewise, developers now have more reason than ever to migrate their applications to an environment that has the potential for unlimited users.

Yet despite all of Ajax's promise, many web developers readily admit being intimidated by the need to learn JavaScript (a key Ajax technology). Not to worry! I wrote this book to show PHP users how to incorporate Ajax into their web applications without necessarily getting bogged down in confusing JavaScript syntax, and I've chosen to introduce the topic by way of practical examples and real-world instruction. The material is broken down into 14 chapters, each of which is described here:

**Chapter 1:** "Introducing Ajax," puts this new Ajax technology into context, explaining the circumstances that led to its emergence as one of today's most talked about advancements in web development.

**Chapter 2:** "Ajax Basics," moves you from the why to the what, covering fundamental Ajax syntax and concepts that will arise no matter the purpose of your application.

**Chapter 3:** "PHP and Ajax," presents several examples explaining how the client and server sides come together to build truly compelling web applications.

**Chapter 4:** "Database-Driven Ajax," builds on what you learned in the previous chapter by bringing MySQL into the picture.

**Chapter 5:** "Forms," explains how Ajax can greatly improve the user experience by performing tasks such as seemingly real-time forms validation.

**Chapter 6:** "Images," shows you how to upload, manipulate, and display images the Ajax way.

**Chapter 7:** “A Real-World Ajax Application,” applies everything you’ve learned so far to build an Ajax-enabled photo gallery.

**Chapter 8:** “Ergonomic Display,” touches upon several best practices that should always be applied when building rich Internet applications.

**Chapter 9:** “Web Services,” shows you how to integrate Ajax with web services, allowing you to more effectively integrate content from providers such as Google and Amazon.

**Chapter 10:** “Spatially Enabled Web Applications,” introduces one of the Web’s showcase Ajax implementations: the Google Maps API.

**Chapter 11:** “Cross-Browser Issues,” discusses what to keep in mind when developing Ajax applications for the array of web browsers in widespread use today.

**Chapter 12:** “Security,” examines several attack vectors introduced by Ajax integration, and explains how you can avoid them.

**Chapter 13:** “Testing and Debugging,” introduces numerous tools that can lessen the anguish often involved in debugging JavaScript.

**Chapter 14:** “The DOM,” introduces the document object model, a crucial element in the simplest of Ajax-driven applications.

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