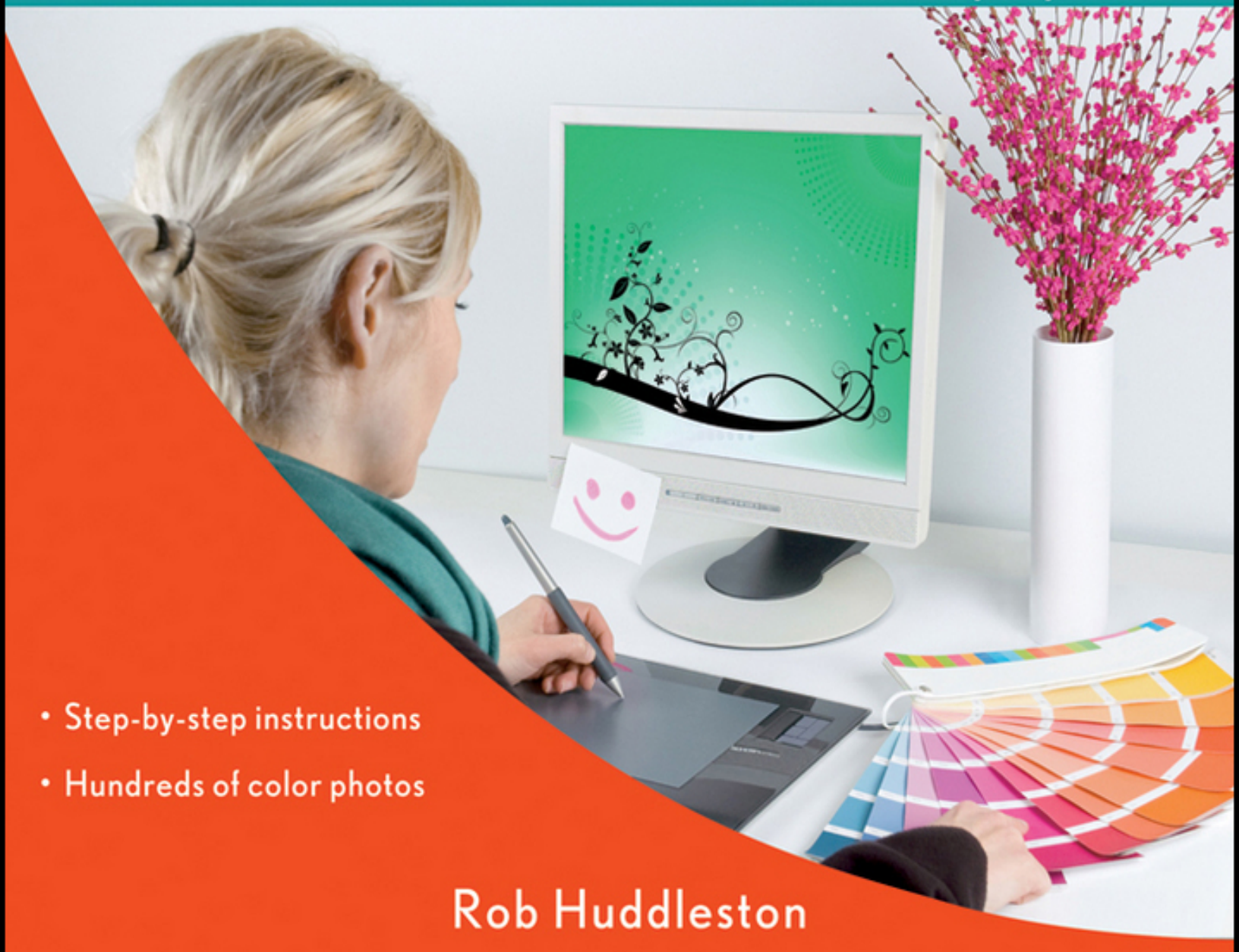
Teach Yourself VISUALLY™

Web Design

The Fast and Easy Way to Learn



- Step-by-step instructions
- Hundreds of color photos

Rob Huddleston

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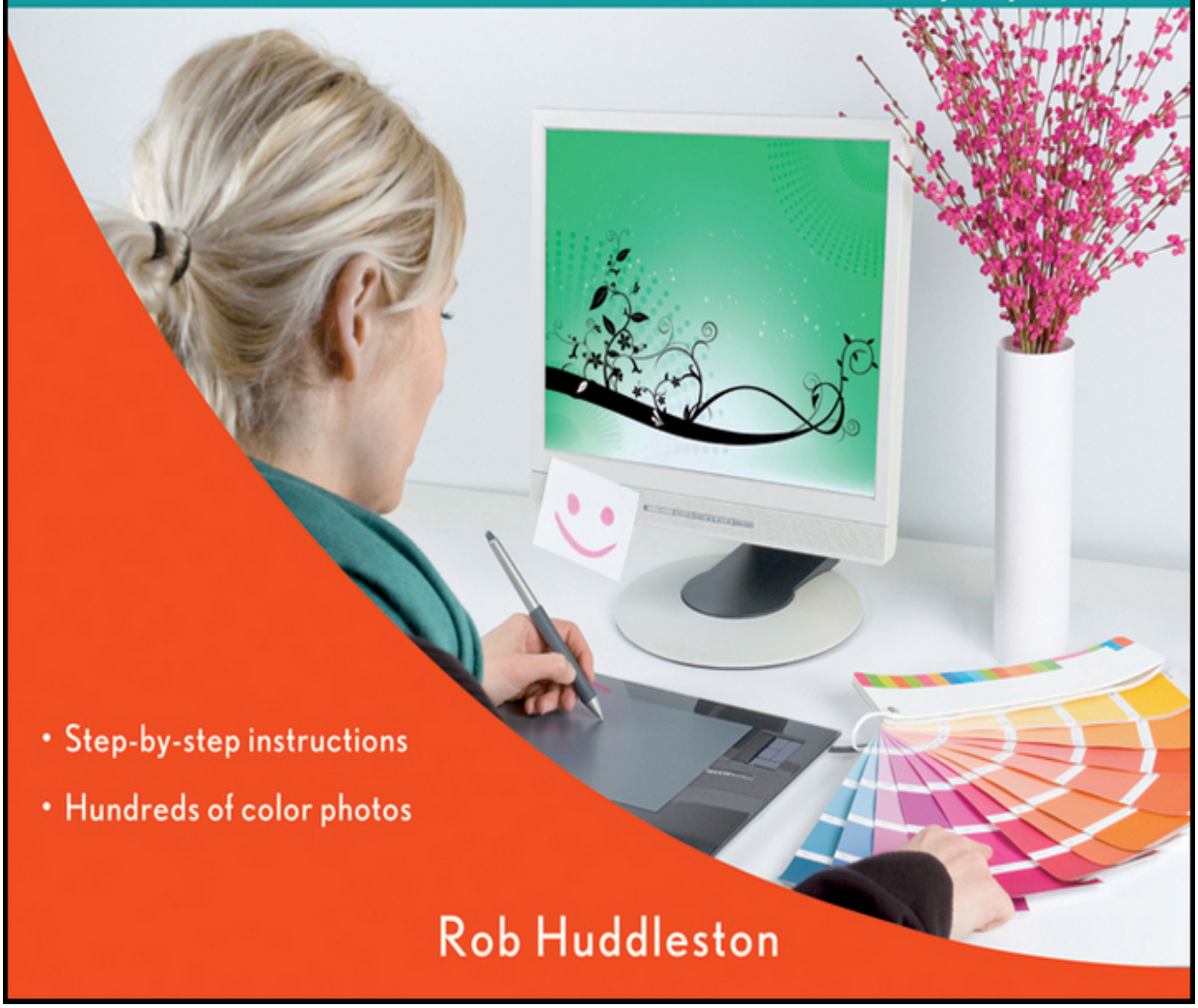

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Teach Yourself VISUALLY™ Web Design

Rob Huddleston

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About the Author

Rob Huddleston has been developing Web pages and applications since 1994, and has been an instructor since 1999, teaching Web and graphic design to thousands of students. His clients have included the United States Bureau of Land Management, the United States Patent and Trademark Office, the States of California and Nevada and many other federal, city, and county agencies; the United States Army and Air Force; Fortune 500 companies such as AT&T, Bank of America, Wells Fargo, Safeway, and Coca-Cola; software companies including Adobe, Oracle, Intuit, and Autodesk; the University of California, San Francisco State University, and the University of Southern California; and hundreds of small businesses and nonprofit agencies, both in the United States and abroad. Rob is an Adjunct Professor in the Interactive Media program at the Art Institute of California, Sacramento. He is an Adobe Certified Instructor, Certified Expert, and Certified Developer, serves as an Adobe User Group Manager, and has been named as an Adobe Community Professional for his volunteer work answering user questions in online forums. He also helps users as an expert moderator on Adobe's Community Help system. Rob lives in Northern California with his wife and two children.

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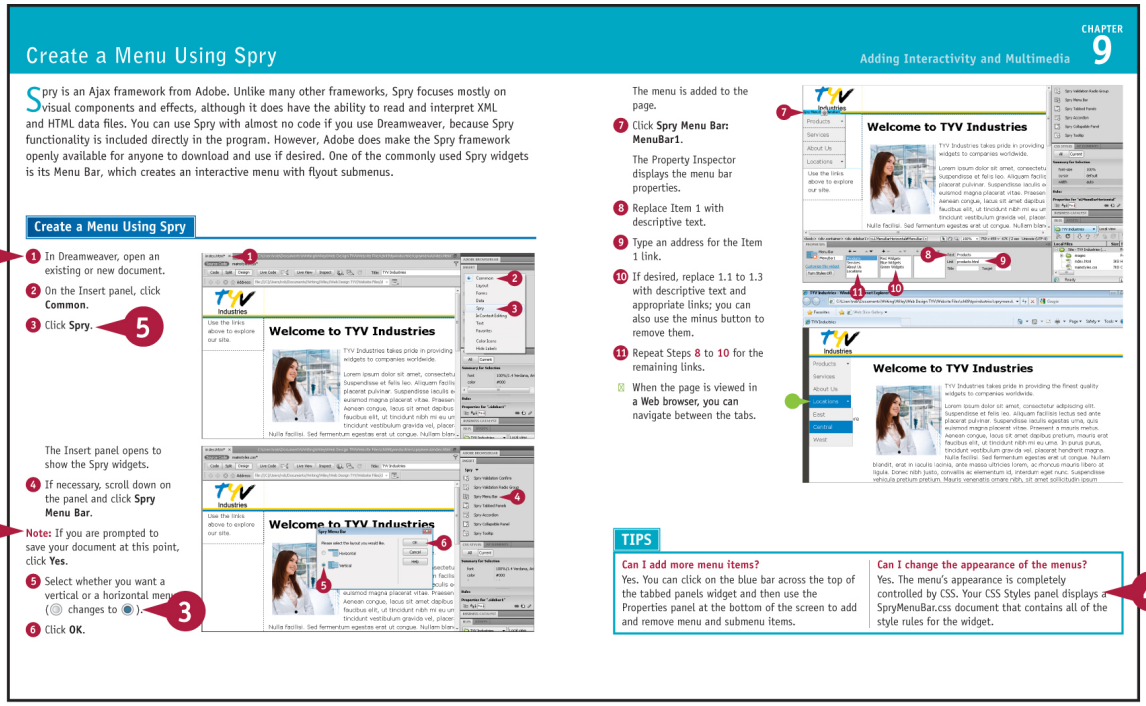
How to Use This Book

Who This Book Is For

This book is for the reader who has never used this particular technology or software application. It is also for readers who want to expand their knowledge.

The Conventions in This Book



1 Steps

This book uses a step-by-step format to guide you easily through each task. **Numbered steps** are actions you must do; **bulleted steps** clarify a point, step, or optional feature; and **indented steps** give you the result.

2 Notes

Notes give additional information — special conditions that may occur during an operation, a situation that you want to avoid, or a cross reference to a related area of the book.

❸ Icons and Buttons

Icons and buttons show you exactly what you need to click to perform a step.

❹ Tips

Tips offer additional information, including warnings and shortcuts.

❺ Bold

Bold type shows command names, options, and text or numbers you must type.

❻ Italics

Italic type introduces and defines a new term.

Chapter 1: The Tools of Web Design and Planning Your Site

Before you can dive into creating Web sites, you need to understand the tools that you need. This chapter shows you the software you need to create Web pages, add images to them, and preview the finished products. However, software alone cannot make a good Web site. You need to carefully plan your site's content, design and overall structure in order to create a site. Therefore, this chapter also details those steps you should undertake to plan your site before you begin building it.

A Brief History of the Web

Understanding Browsers

Visual Design Tools

Code-based Tools

Graphics Programs

Understanding the Importance of Planning Your Site

Understanding Your Audience

Gather Your Materials

Plan Your Navigation Structure

Plan Your File Structure

A Brief History of the Web

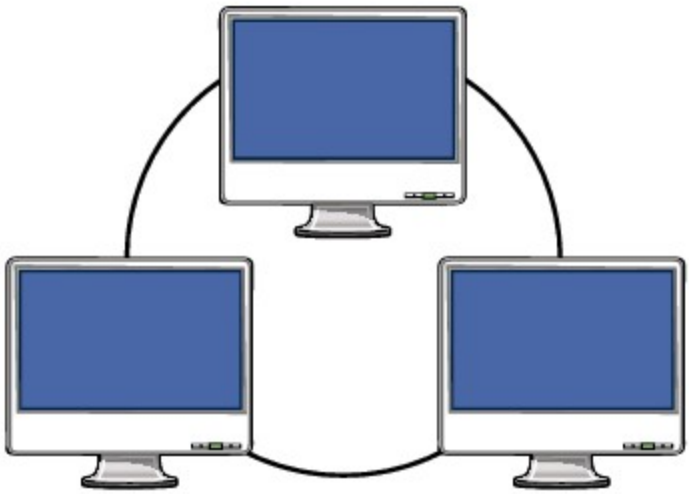
Only twenty years after its invention, the World Wide Web has become commonplace and has fundamentally changed the way we work, live, and interact with others. However, the medium is in many ways still in its infancy, and as you progress in learning about designing Web pages, you will encounter many significant limitations primarily because the Web was not created as a place to sell books or keep in touch with friends from high school. Understanding why the Web was invented and what its original goals were will help you better understand these issues.

The Invention of the Web

The Web was invented in 1990 by Tim Berners-Lee. Berners-Lee was a physicist at CERN, the European laboratory for particle physics, located in Geneva, Switzerland. Berners-Lee noted that visiting scientists, while working on experiments that could have come straight from *Star Trek*, had to exchange most of their information with one another on paper because their computer systems were incompatible. He therefore created the Web as a way to allow these scientists to share their findings, regardless of what kind of computer system they used.

The Invention of the Internet

Jokes about politicians aside, no one person invented the Internet. Rather, it evolved over decades from a variety of other sources. Much of the early work on what became the Internet was done in the 1960s. Although the United States Department of Defense funded the early research, the Internet was not, contrary to popular belief, designed by or for the military directly.



The Web versus the Internet

Many people confuse the Web with the Internet, but it is important to understand that they are not the same thing. The Web is best thought of as an application that runs on the Internet. E-mail is another application running on the Internet, entirely separate from the Web.

Protocols

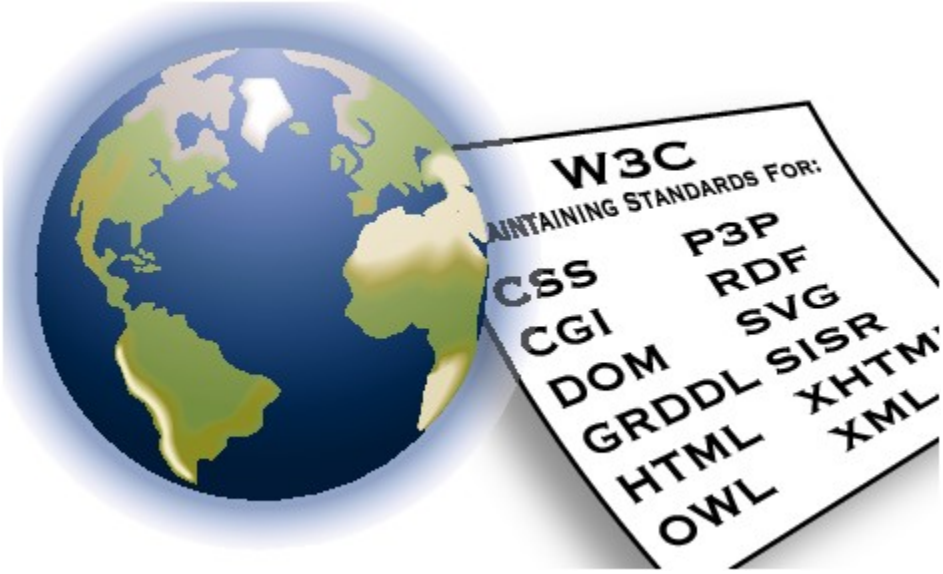
Computer networking relies on *protocols*, which are essentially standards by which two computers can talk to one another using a common language. The Internet relies on a suite of two protocols: TCP, or Transmission Control Protocol, and IP, or Internet Protocol. TCP/IP was developed in the 1970s by Robert Kahn and Vinton Cerf. The Web primarily uses the Hypertext Transfer Protocol, or HTTP, developed in 1990 by Tim Berners-Lee.

The Expansion of the Web

CERN did not show much interest in Berners-Lee's invention, and so allowed him to make it publicly available with no licensing restrictions. Soon, scientists at Stanford University and the National Center for Supercomputing Applications took his ideas and began building servers and browsers to work with. Companies soon followed, and by the mid-1990s, the Web had taken off.

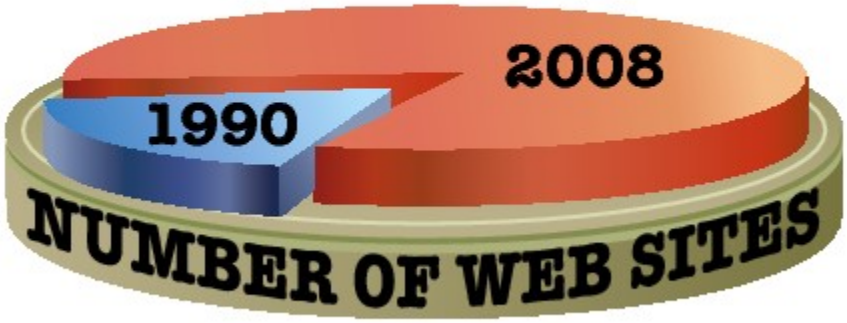
The World Wide Web Consortium

In October 1994, Berners-Lee left CERN and founded the World Wide Web Consortium (W3C) as a sort of governing body for the development of the Web. Today, the W3C is still responsible for maintaining and adopting standards for languages such as HTML, or **H**yper**t**ext **M**arkup **L**anguage. They also promote standards for other aspects of the Web, such as graphics formats and **c**ascading **s**tyle **s**heets, or CSS.



The Web Today

Exact numbers are hard to find, but most estimates show that many billions of Web pages are in existence. Search engine Google announced in 2008 that it had indexed one trillion unique Web addresses. Hundreds of millions of Web sites are likely currently in operation. Considering that 2010 marks only the 20th anniversary of the Web, its expansion is truly amazing.



Understanding Browsers

The primary means by which most people access the Web is via a browser. Browsers are simply software applications that read and interpret HTML pages. In a way, you can look at browsers as the canvas for which you design your page. Unfortunately, browsers are inconsistent in the ways in which they display pages, and remain the primary source of Web designers' headaches. Although you can minimize these differences on your pages, understanding browsers is an important first step to learning how to create sites that avoid these issues.

WWW: The First Browser

Tim Berners-Lee developed the first browser when he invented the Web. Although he considered many names for it, he finally settled on WorldWideWeb. His idea was to have browsers/editors, whereby users would rely on a single tool to both view and create pages.