

book reviews



ELIZABETH ZWICKY
WITH BRANDON CHING

A PRACTICAL GUIDE TO LINUX: COMMANDS, EDITORS, AND SHELL PROGRAMMING

Mark G. Sobell

Prentice Hall, 2010. 988 pp.
ISBN 978-0-13-136736-4

This book is ideal for somebody who's bright, motivated, and ready to go beyond the GUI on Linux or OS X, particularly if they also need to deal with those of us who are not so much beyond the GUI as before the GUI. I could quibble with a large number of its choices, but mostly I'm arguing about matters of taste, and about the inevitable compromises that are made when you try to cram a really large set of stuff with poorly defined boundaries into a book, which has to start somewhere, end somewhere else, and still be possible to lift. If you've got people around who can learn things from books and who really need to be able to cope with the magical world of the UNIX command line and twisty mazes of pipes as they were intended to be, this is a great book to have around.

Here are some of the important choices the author made: first, the book is as platform-agnostic as possible. That means there are fascinating platform-dependent features that aren't covered. If you want to know every bell and whistle, you'll need something specific to your platform, and probably to some small set of releases. I don't see that as a big deal, because I think the important things to start with are the things that carry across platforms.

Second, the book covers commands, not internals. This is a hard line to draw, and in some cases I think this is problematic. Without understanding something about file systems, it's hard to make any sense of hard and soft links, or of holes in files. The author does his best, but it's often not exactly correct, or it's confusing. I'm not sure there's any winning this one, as many of the people who most need to understand the internals think of them as irrelevant or intimidating, and talking about internals only worsens the problems with cross-platform compatibility.

Third, the book covers programming, without assuming any programming experience. I think this is a valiant effort, but I'm dubious about how well it's going to serve most naive readers. If you don't understand if-then constructs, you're going to need more help than this book can offer, and you probably ought to learn to program in something, anything, before you dive into writing shell scripts. On the other hand, there are some brave, even foolhardy, souls out there (I may have been one of them) who can actually use this sort of thing.

I would have chosen a different set of commands to cover (personally, I've always found `dc` more useful than `sed`, not that I've used either in years), but that's very much a question of taste. Even more pettily, I twitch every time I see "TC shell." I don't suppose there's a solution a copy editor won't whine about, but "T C shell" would at least get across the idea that it's a kind of C shell.

But, as I said, this is all quibbling. Fundamentally, it's a strong book that goes a long way toward bridging the gap between good old-fashioned UNIX hackers and those whippersnappers who only know Linux or Macintoshes.

INSIDE CYBER WARFARE

Jeffrey Carr

O'Reilly, 2010. 205 pp.
ISBN 978-0-596-80215-8

Here's another book that faces some nasty challenges. In the case of cyber warfare, the problem is that it is difficult to know anything with certainty, and what you do know it is probably unethical to talk about. For instance, if you know for certain that our country is vulnerable to certain sorts of attacks, how much can you say about that? What's the line between proving that you do know what you're talking about, and enabling idiots to cripple vital national infrastructure? Note that any security practitioner of a reasonable degree of expertise knows at least one way to cripple vital national

infrastructure without unreasonable expenditure of resources, and most of them have been known to hang out in groups chatting about these things. But one must assume that there are lots of ill-intentioned people out there who don't know how, and you wouldn't want to draw them a map.

Then there's the question of just who is attacking whom and why. It's really not in the best interest of any ill-intentioned party for this to be clear. Who's in it for the money? Who's in it for politics? Who's linked to a government? Nobody wants you to know this. If you're in it for the money, it's to your advantage to make people think you have political goals and government sponsorship. If you're in it for the politics, you probably want to hide among the garden-variety criminals. If you're a government sponsoring attacks, you *really* don't want anybody to know. And if you've found out for certain? Well, how much would you like to annoy some political terrorists, organized crime, and a hostile government or two? Plus, quite likely, all the people trying to foil them? That's a lot of people with the knowledge and ability to use various kinds of unpleasant force against you, so you don't have a lot of incentive to go telling people what you know.

On the plus side, spies are kind of fascinating, and attacks against networks are an immediate threat to almost everybody, so there's a lot of potential interest in a book about cyber warfare. Unfortunately, this book doesn't manage to make the most of that potential. It does manage to make a convincing case that cyber warfare exists, mostly in the form of collusion between governments and non-governmental entities, and that the laws of war allow nations to do stuff about it. But it's not a fun ride, for both editorial reasons and technical ones.

The book is patched together from a number of sources (the author might more reasonably be described as a contributing editor, since whole chapters are written by other people). The seams show, often badly, in the form of differing tone, style, and background assumptions, and in the lack of an overarching structure to the book. Worse yet, there are straightforward editorial errors, such as content repeated between chapters apparently unintentionally.

There are also some significant technical flaws. It is not fair to say that anti-virus solutions are always based on signature detection; there are heuristic-based solutions available now, which work by looking at behavior rather than signatures, and that hardly begins to scratch the surface of what's possible, particularly in secured environments. Similarly, complaining that Microsoft Word's binary format is bad because you can't detect hostile content by human visual inspection is just silly. Trust me, it could say "VIRUS HERE" in the source, and nobody would notice.

Personally, I think there are important lessons here for various people I know who are worried about controlling corporate environments against government-sponsored spying. First, even in military environments, people are terrible about information security. That is, people who have been made to sit in small rooms while people with guns tell them about the vital need for secrecy still discuss their jobs on Facebook. You might as well give up on getting your employees to keep their employer a secret. (Particularly if you give your employees things to wear in public with your logo on them.)

Second, governments do a lot of their cyber attacks via third, fourth, and fifth parties, who are the same sometimes-smart sometimes-not crew who bring you spam. You can stop worrying about whether or not you're being attacked by a government, because you're never going to know. On the other hand, there's also no point just deciding you can't defend against a government, because most of the time, they're not going to be any brighter or better resourced than the usual range of attackers.

All of this is in the book, but this is my interpretation, which doesn't particularly relate to the author's. To the extent that the book has a clear audience, it's aimed at government, rather than business.

INTRODUCING STATISTICS: A GRAPHIC GUIDE

Eileen Magnello and Borin Van Loon

Totem Books, 2009. 174 pp.
ISBN 978-184831056-8

Another entry into the list of "statistics through pictures" books. *Head First Statistics* is still my favorite for practical statistics, but this is a fun tour of statistics, concentrating on history but picking up the numbers on the way past. The illustrations are both practical and amusing, the examples are mostly drawn from real data, and it covers the important common statistical flaws. It's a whirlwind

tour rather than an in-depth introduction, and it covers a lot of territory, so it's easy to scan quickly without absorbing. If you're looking for something non-threatening that gives you a sense of the historical background, this is a fun choice, but you'll need more help to actually run the numbers.

HARD FACTS, DANGEROUS HALF-TRUTHS & TOTAL NONSENSE: PROFITING FROM EVIDENCE-BASED MANAGEMENT

Jeffrey Pfeffer and Robert I. Sutton

Harvard Business School Press, 2006. 264 pp.
ISBN 978-1-59139-862-2

This is quite possibly the geekiest business book ever, because its main thesis is that you ought to actually care about data when deciding how to do management. Interestingly, the net result of paying attention to data is that you prefer a management style that involves being nice (for some definition of nice). It's hard to avoid the desire to be intolerably snide about some of this, since it is overwhelmingly pleasant to be able to say, "Actually, people have done studies, and behaving like a reasonable human being? It's not just a good idea! It's what actually works!"

Get this book if you have the nagging feeling that there is something horribly wrong with your management culture, particularly if what's bothering you is an insatiable desire for apparently pointless change, or a rigid adherence to the idea that one must reward the top performers and get rid of the bottom ones, always, in every group no matter how small and how talented. It will not necessarily enable you to change your company, but at least you will no longer feel alone, or believe that this is your problem. There are people in suits with degrees in management who feel just like you and are at least as angry about it, only they have more research and a publisher.

WEB DESIGN FOR DEVELOPERS: A PROGRAMMER'S GUIDE TO DESIGN TOOLS AND TECHNIQUES

Brian P. Hogan

Pragmatic Bookshelf, 2009. 311 pp.
ISBN 978-1934356135

REVIEWED BY BRANDON CHING

Few people outside of Web development understand the difference between a Web designer and a Web developer. This distinction, while subtle in conversation, is considerable in application. Web developers like myself generally do not do design very well. We know what looks good, but we won't always be able to make an application as pretty as someone with an eye for art and a heart for design.

Enter Brian Hogan and *Web Design for Developers*. Unlike general Web design and CSS books, *Web Design for Developers* takes a look at approaching design through the eyes of a programmer. This isn't a CSS handbook or a high-in-the-sky artsy design guide; it is a no-nonsense guide to the basic principles and techniques that make for visually appealing Web applications.

The author's writing is very approachable and to the point, yet full of enough content and whim to keep it interesting. Under the guise of redesigning a recipe-sharing application, the author guides you through the process of beautifying an existing site as opposed to designing one from scratch. The text is full of references to Web sites, design guides, and helpful utilities, such as color tools, which will aid any aspiring artistic programmer.

The book has four sections: The Basics of Design, Adding Graphics, Building the Site, and Preparing for Launch. The Basics of Design covers the fundamentals of requirements gathering and design planning. The first two chapters deal with client communication procedures and the basics of idea generation and requirements gathering. While not intended to be all-inclusive or in-depth, the coverage should be sufficient for most developers. Remember, this book is geared towards professional developers who are assumed to already have at least a rudimentary grasp of how to tease requirements from clients.

The remaining two chapters of this section quickly get to the heart of what most artistically challenged developers are after: style, and I don't mean CSS. Hogan presents two fluid and fundamental chapters on colors and fonts. He breaks down basic artistic design principles such as color schemes, color mood, font types, and font selection. While not terribly interesting, colors and fonts are the

meat and potatoes of good Web design, and Hogan does a good job of conveying what you need to know about both.

Weighing in at a light 40 pages, *Adding Graphics* is a short and to-the-point introduction to using Photoshop to generate the logo and mock-up for the site. This is not the place to learn Photoshop techniques for the Web, but that is not the intention of this section. Rather, Hogan provides formatting and layout principles of mock-ups while also introducing the Photoshop tools and techniques (such as layering and masks) that you will need to reproduce them.

The third section, *Building the Site*, is where we finally break into the code! Now, given that this book is dedicated to professional developers, I'm not entirely sure why there is an entire chapter dedicated to HTML tags and compliance. These are things that the book's target audience should already be intimately familiar with. However, the next few chapters in this section are quite handy, in that they deal with asset creation from the mock-up generated earlier in the book, the integration of CSS to define the layout, CSS/

browser compatibility issues, and even a chapter on printer-friendly tweaks.

The final section, *Preparing for Launch*, is a hodgepodge of topics that any designer or developer needs to be aware of. Topics include a more in-depth analysis of browser compatibility, search engine optimization, accessibility and usability, mobile device support, testing and performance, and even a brief chapter on favicon creation. The chapters on mobile content and browser compatibility are good, but the chapter on accessibility and usability is exceptional, covering issues such as color blindness and hearing and motor impairment and telling you what you need to do about them.

Overall, *Web Design for Developers* is a bookshelf-worthy buy. While the title suggests professional developers as the target audience, I would venture to say that it would be more useful to novice and intermediate-level developers, as a significant portion of the book covers material that most professional developers would already know. However, the principles of design, general designer tips, layout and mock-up techniques, color and font selection, and the accessibility and usability sections are definite jewels that artistically challenged developers should at least take a look at.

Linux is today's dominant Internet server platform. System administrators and Web developers need deep Linux fluency, including expert knowledge of shells and the command line. This is the only guide with everything you need to achieve that level of Linux mastery. Renowned Linux expert Mark Sobell has brought together comprehensive, insightful guidance on the tools sysadmins, developers, and power users need most, and has created an outstanding day-to-day reference, updated with assistance from new coauthor Matthew Helmke.

- `ssh`: Securely runs a program or opens a shell on a remote system 980.
- `sshfs/curlftpfs`: Mounts a directory on an OpenSSH or FTP server as a local directory 981.
- `stat`: Displays information about files 984.

A Practical Guide to Linux® Commands, Editors, and Shell Programming is the most useful, most comprehensive Linux tutorial and reference you can find. It's the only book to deliver.

- Linux programming environment, including `make`, `gcc`, `gdb`, `CVS`, and much more
- Expert guidance on basic and advanced shell programming using `bash` and `tcsh`
- Tips and tricks for customizing the shell and using it interactively from the command line
- Thorough guides to `vim` and `emacs`, designed to help you get productive fast and maximize your editing efficiency
- Dozens of exercises to help you practice.

February 7, 2019 Books. A Practical Guide to Linux Commands, Editors, and Shell Programming, 4th Edition by Mark G. Sobell, Matthew Helmke English | 2017 | ISBN: 0134774602 | 1232 Pages | True PDF, EPUB | 58 MB.

Linux is today's dominant Internet server platform. System administrators and Web developers need deep Linux fluency, including expert knowledge of shells and the command line. This is the only guide with everything you need to achieve that level of Linux mastery.

- In-depth coverage of the `bash` and `tcsh` shells, including a complete discussion of environment, inheritance, and process locality, plus coverage of basic and advanced shell programming.