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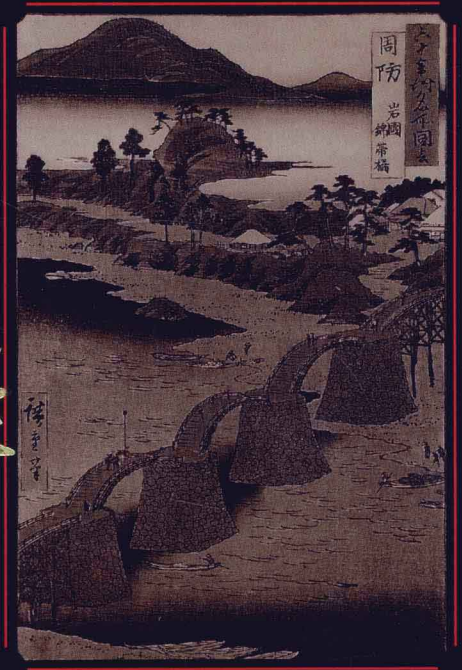

A beginner's Guide

PC Magazine
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"Best Introductory Internet Book"

BRENDAN P. KEHOE

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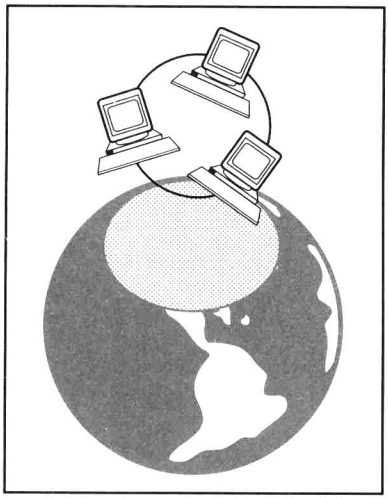

Zen and the Art of the Internet

A Beginner's Guide

Third Edition

Brendan P. Kehoe

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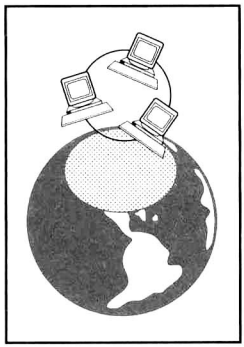

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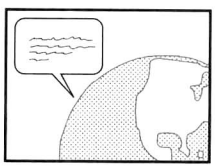
Foreword

One of the wonderful things about working on the Internet is the near guarantee that help will arrive from unexpected places. In this case, a local guide prepared so that a system administrator at a small college wouldn't have to answer so many pesky questions about how to use the Net has turned out to be just the key to helping people all over the world get up to speed on the way the Internet works.

Zen and the Art of the Internet is more than just a collection of recipes of how to connect to this or that site or what arcane commands to type at what prompts. There's a lot of that, to be sure—the Net still has what John Perry Barlow terms a "savage user interface," and some amount of hand-holding is needed to guide people through the rough spots. Much more than that, though, *Zen* gives the new user of the Net some clue as



"I think, though, that if I suddenly found myself in the, to me, unthinkable position of facing a class in English usage and style, I would simply lean far out over the desk, clutch my lapels, blink my eyes, and say, 'Get the little *book! Get the* little *book! Get the* little *book!'"*

— E.B. White,
introduction to Strunk and White's
The Elements of Style.

to *why* things are as they are, how people interact in this environment, and an approach to make their use of the Internet less of a hunt through the wilderness.

Brendan has written a book which has been on the wish lists of network builders for a long time—a clear, straightforward, and engaging description of what the Internet is and why you want to be connected to it. While large sums of money may build bigger and faster networks, *Zen* argues that it is the mass of well trained, literate, and interesting people *behind* the wires and computers that makes them really successful.

Edward Vielmetti
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Preface

The Internet has come of age.

In the United States, the 1992 Presidential campaign had an unparalleled presence in Cyberspace. Candidates sported email addresses, electronically available position papers, and a heretofore unseen awareness of this "global village." In the former Soviet Union, email was one of the only ways citizens could get information out about the coup against then-President Gorbachev. And MTV is on the Net.

For those who helped build the Internet, its fantastic growth—more than doubling in size each six months—has been both exciting and sobering. Many predict that in only a few years, Internet connectivity will be available by right, in much the same way as having access to a telephone is considered a basic necessity.

To someone learning about the Net for the first time, the sheer size of it can be overwhelming. Many people feel a strong urge to panic when they first encounter the Internet, putting it on a list of things to avoid, like learning to program a VCR. I urge you to stick with it, and set your own pace. You alone control your learning process. If you need to, learn to program your VCR first, so you can tape the shows you'll miss when you're traveling through Cyberspace. Then start reading, keeping in mind that in a day or two, you'll have learned enough to actually help others use the Net.

In 1968, just before the birth of what became the Internet, J.C.R. Licklider and Robert Taylor wrote about virtual communities; a quar-

ter of a century later, their words perfectly describe what's happened on the Net.

> *What will on-line interactive communities be like? In most fields they will consist of geographically separated members, sometimes grouped in small clusters and sometimes working individually. They will be communities not of common location but of common interest.*

And thus begins the web.

brendan@zen.org
Santa Cruz, CA

Preface to the Second Edition

Welcome to Cyberspace!

We've been expecting you. Be careful as you try out your new legs—the ground's firm, but does have some unexpected twists and turns. This book will be your guide through a vast and amazing web of new people, places, and ideas.

Zen is intended for computing novices and experienced researchers alike. It attempts to remain operating-system "neutral"—little information herein is specific to DOS, Unix, VMS, or any other environment. In its early stages, this book prompted response from a vast and disparate audience—from librarians to hobbyists to carpenters to Ph.D. physicists. It's my hope that it will be useful to nearly anyone.

Some typographical conventions are maintained throughout. All abstract items like possible filenames, usernames, etc., are represented in *italics*. Similarly, definite filenames and email addresses are represented in a quoted 'typewriter' font. A user's session is usually offset from the rest of the paragraph, as such:

```
prompt> command
    The results are usually displayed here.
```

The purpose of this book is two fold: first, it will serve as a reference piece which you can easily grab on the fly to look something up. You'll also gain a foundation from which you can explore your surroundings at your leisure. *Zen and the Art of the Internet* doesn't spend a significant amount of time on any one point; rather, it provides enough for people to learn the specifics of what his or her local system offers.

One warning is perhaps in order—this territory we are entering can become a fantastic time-sink. Hours can slip by, people can come and go, and you'll be locked in Cyberspace. Remember to do your work!

With that, it's my distinct pleasure to usher you into the Net.

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Chester, PA

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Acknowledgments

Certain sections in this booklet are not my original work—rather, they are derived from documents that were available on the Internet and already aptly stated their areas of concentration. The chapter on Usenet is, in large part, made up of what is posted monthly to news.announce.newusers, with some editing and rewriting. Also, the main section on *archie* was derived from 'whatis.archie' by Peter Deutsch, then of the McGill University Computing Centre. It's available via anonymous FTP from archie.mcgill.ca. Much of what's in the telnet section came from an impressive introductory document put together by SuraNet, along with a few discoveries from Scott Yanoff 's list. Some definitions in the glossary are from an excellent one put together by Colorado State University.

It would be remiss of me not to thank those who provided the moral and inspirational support that has been so invaluable throughout this whole process: Sven Heinicke, at whose house I wrote a good 40% of the first edition of the guide over a Christmas break; Jennifer Kowaleuski; Chip Page; and Patrick Quairoli, for his grace under pressure. And my thanks to Jeffrey Osier, for all of his help and great music. I'm proud to call them my friends.

Zen would not be the same without the aid of many people on the Net, and the providers of resources that are already out there. Many, many people sent in encouraging notes and a few corrections for mistakes or changes in the second edition. I'd also like to thank the folks who provided much-needed information on the fly, or gave comments,

suggestions, and criticisms to early drafts of the guide and its parts: Andy Blankenbiller, Vint Cerf, Alan Emtage, Brian Fitzgerald, John Goetsch, Jeff Kellem, Bill Krauss, Steve Lodin, Mike Nesel, Bob Neveln, Wanda Pierce, Joshua Poulson, Dave Sill, Bob Smart, Gene Spafford, Ed Vielmetti, Craig Ward, and Chip Yamasaki. Glee Willis of the University of Nevada-Reno deserves particular mention for all of her work—this guide would have been considerably less polished without her help.

Finally, mixed thanks to Anne Rice, whose books *The Witching Hour* and *Lasher* were absolutely fantastic. I got so hooked that I ended up just barely meeting my deadline.

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