

A Guide for the Technologically Perplexed

DOES THIS PLUG INTO THAT?



**SIMPLIFY
YOUR
ELECTRONIC
LIFE**

Eric Taub

DOES THIS PLUG INTO THAT?



Eric Taub

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The New York Times Circuits: How Electronic Things Work

The New York Times Practical Guide to Practically Everything: The Essential Companion
to Everyday Life

To Carol, the love of my life

“Technology makes it possible for people to gain control over everything, except over technology.”

—John Tudos

“Once a new technology rolls over you, if you’re not part of the steamroller, you’re part of the road.”

—Stewart Branc

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Introduction

Does this plug into that? How many times have you asked yourself that question?

Probably often. If technology is supposed to change our lives for the better, then why is so much of it such a pain to operate?

Perhaps with the exception of Apple, most consumer electronics companies seem to have no idea how the nontechie world lives. Just because they get it, they think everyone else should as well. And if you don't, well, who cares about you anyway?

Kids get it. Children not even able to talk know how to swipe their fingers across cell phones, imitating their parents looking at pictures on their Android smartphones or iPhones. But if you're not of that generation, chances are it's all a bit overwhelming, and if you've never heard of an Android phone, then it's definitely overwhelming. You know that the world is starting to pass you by when you tell a younger family member how exciting it was to get your first extension phone, and he asks, "What's an extension phone?"

The world entered an electronics revolution when technology changed from analog to digital. That began to widely occur in the 1980s, when personal computers were first introduced to the public. Before that, electronics progressed slowly. You may have graduated from a standard phonograph, to a hi-fi record player, to a stereo system, but even as you did, how they operated remained the same. Reel-to-reel audiotape, cassette players and snapshot cameras were easy to use and easy to understand.

The switch to digital—the encoding of all information as a series of ones and zeros—brought with it a level of previously unimaginable features and complexity. Not only can the sounds and visuals of life be recorded digitally, but now digital attributes can course throughout an entire product.

For example, using an Android phone, you can take a high-resolution photograph and then while viewing it, alter the tones and apply various effects; you can make the photo look old,

saturate the colors, or turn it into a cartoon-like image. You can do these things because you can manipulate a digital copy of the image while viewing it on a screen.

Similarly, you can cut and paste text on screen, change the font, size, and color, and add a beautiful, visually complex border to a manuscript you're typing on a computer. Using a typewriter, the best you could do was to physically cut out text and then move it by taping it to a new location on another physical piece of paper.

Although those examples may be obvious today, they illustrate the power of the digital world; by turning everything into digital code, not only can you create works of art in a device the size of a pack of cigarettes, but you can turn on your oven or program your HDTV recorder from across the globe. You can recreate the sound of a large concert hall in your apartment. And one day, you'll be able to take the activities you've started at home—whether that's a movie you're watching, a book you're reading, or your blood pressure—and continue them as you move throughout your day, from the house to the car, to a flight across the country.

With each added feature comes an exponential increase in complexity, which means that learning a new product often becomes a more involved and convoluted task. But if you're the type of person who wants to stay on top of all the latest gadgets and trends and technologies, there's an easy way to do it.

Just read this book.

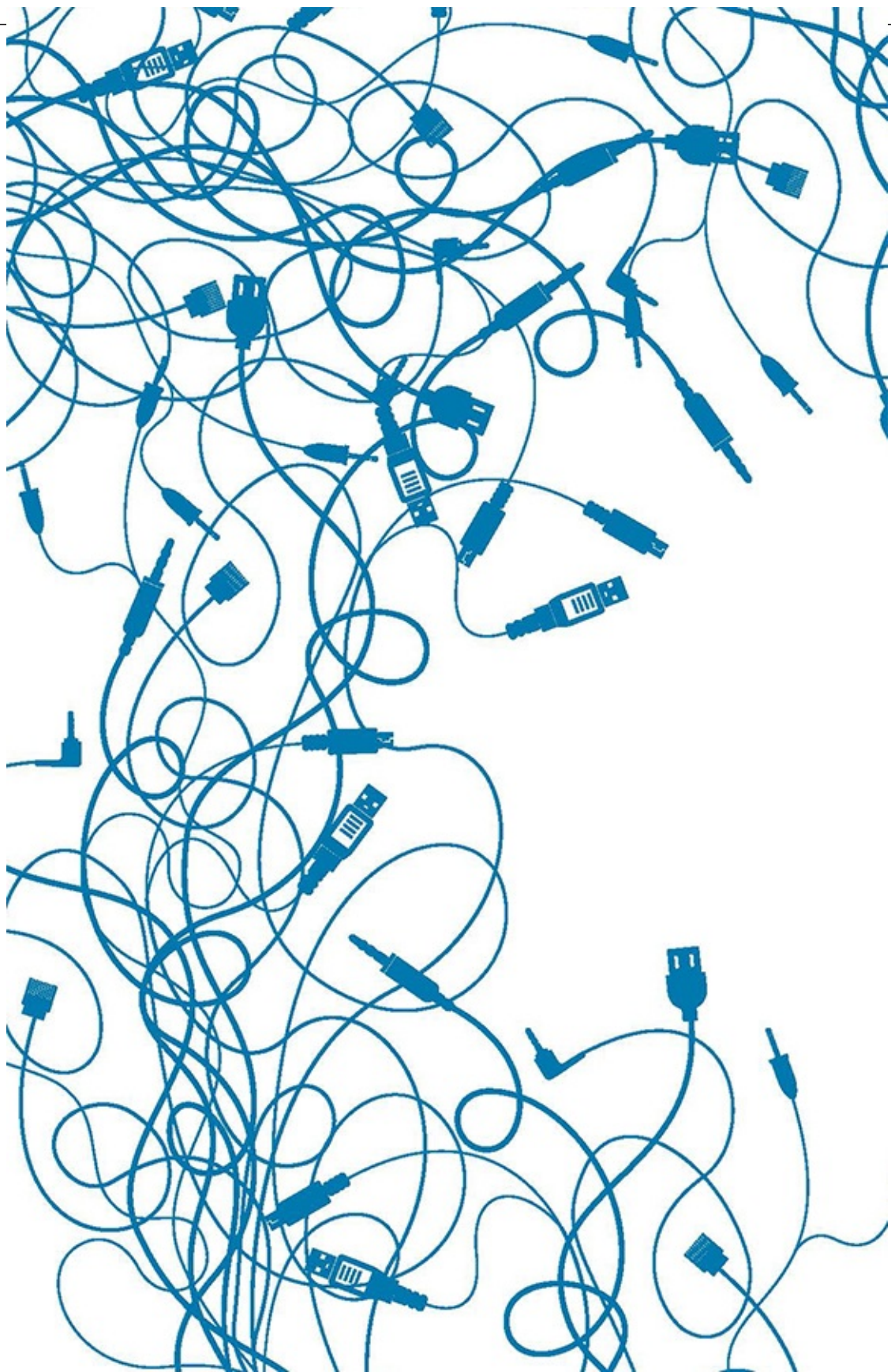
Does *This Plug into That?* isn't an idiot's guide to technology, because if you're reading this, you're probably not an idiot. Rather, you're probably someone who wants to use a lot of technology that's popular today, but you want it to just work, without having to know a lot of acronyms, arcane terms, and the theory behind the technology.

Think about it: You know how to drive a car, but you probably don't know how to fix one. When TVs were picture tube sets, you knew how to change channels, even if you didn't know how the picture got on the screen. So why are you now expected to know which cable to use to connect a Blu-ray player to your TV or understand incomprehensible instructions to set up a wireless home network?

When I was researching my book *Taurus: The Making of the Car That Saved Ford*, the company's head of design asked me whether I knew how they decided where on the dashboard to put the air conditioner vent. I didn't.

"We don't decide," the designer told me. "The engineers decide to put it wherever it's easiest for them to place it." The company was sacrificing the ability to create a good design one that would please a customer, in order to make life a little easier for its engineers. That's too often the state of today's technology pleasures. The engineers design the products and write the manuals, and then they don't understand why no one can figure out how to use them.

If you want an understanding of how things work and what obscure abbreviations like BD-Live, HDMI, and TCP/IP actually mean, don't read this book. But if you want a helping hand to simply and easily get things up and running, a technological *Guide for the Perplexed* to easily integrate gadgets into your life, and an understanding of why in the end any of this is important, [you've come to the right place.](#)



The Computer: It's What Makes Everything Possible

“I was the first person at the USC School of Religion to do my Ph.D. qualifying exams on a computer. People thought this was cutting edge.

Technology for me is simply a cost/benefit analysis. I love the Internet. It's right next to [Prometheus](#) in importance. I get to meet other peoples' minds. In two hours I can become fairly well educated. It's electrifying.”

—Rabbi Mordecai Finley, Los Angeles

“A computer is like an Old Testament god, with a lot of rules and no mercy.”

—Joseph Campbell

The home computer has long since passed from an expensive luxury to a necessary tool for everyone in modern society. Whether you live in the United States or Uzbekistan, not having a computer cuts you out of the mainstream of life.

Young adults in Vietnam create animated films in their homes for Hollywood studios and e-mail the files back to North America. Students in undeveloped countries are using inexpensive laptops powered by solar cells to help them learn. And of course, everyone is exposed to this through Facebook, Twitter, and many other social media Web sites.

Not owning a computer, or some sort of computing device such as a smartphone or table

is as debilitating as not owning a telephone eventually became in the twentieth century. You simply can't communicate effectively without one.

The debate over what type of computer to buy has been raging ever since the dawn of home computers. Screen size, included software, and, with the debut of Apple's Mac in 1984, the type of operating system continue to be matters of heated discussion. Both camps, Apple aficionados and PC lovers, have good points about why their technology is better. Which one you choose depends on which solid reasons to buy apply to your situation.

For example, if the only thing you like about one particular laptop is that it has a longer battery life but you never use a laptop for more than a few minutes at a time, then battery life shouldn't be important to you. That applies to all electronic products: Don't allow yourself to be wowed by features you'll never or rarely use. Look at a product's specs, test its performance, and buy based on your needs, not those of the salesperson or manufacturer.

Why Shouldn't I Buy a Windows Computer? It Seems As If Everyone Uses One

Nearly everyone does. If you like being one of the crowd, you'll certainly feel more comfortable using a Windows machine—or an Apple iPad or iPhone. Being part of the majority has its advantages. You know that there will be plenty of people to whom you can turn when you run into a problem. The more popular a technology is, the more people will work on it, understand it, and, in the case of computers, write software programs for it.

In the days before digital video recorders, when videotape recorders were in their ascendancy, there was an early battle between videotape formats. The system that eventually became the standard, known as VHS, was actually technically inferior in terms of picture quality to its rival, called Beta. But VHS won the battle for one simple reason: You could record up to two hours on a VHS tape, giving consumers the ability to capture an entire feature film on one VHS cassette but not on a Beta.

It didn't matter that most people actually didn't record feature films; just knowing that one could do it was comforting to enough people that VHS, with its poorer picture quality, eventually displaced Beta and became the single standard for home videotape recording.

For several years, you could still buy a Beta machine and a dwindling supply of prerecorded Beta tapes. But enough consumers decided that wasn't the smart bet, because there was safety in numbers if one chose VHS.

In the same way, there is definitely safety in numbers if you choose a computer that uses the Windows operating system. And for many people that is very important.

Is One Type of Computer Better to Use on the Internet?

It doesn't matter what type of computer you use. Macs and Windows machines are equally good for searching the Internet; downloading files, music, and movies; watching TV shows; and anything else you want to do. Both hardware platforms offer a range of Internet browsers, the programs that make using the Internet possible. Macs come with Apple's own browser, Safari, but you can also use a range of others, including Google's Chrome, Firefox or Opera, to name a few. Windows machines can also use their own versions of Chrome, Firefox, and Opera, and they come preinstalled with Microsoft's Internet Explorer.

Which Is the Best Internet Browser?

Each browser has its own fans. They all display Web sites in pretty much the same manner. The difference is how quickly each page is drawn and what ancillary features they offer. For example, with Apple's Safari you can save pages in a sidebar for reading later, even when you're not online (although these days, most people are continuously connected). Firefox gives you easy access to quick searches, but Google says its browser launches faster than the competition's.

Which browser you choose is a matter of personal preference. In the end, they all work about equally well.

The Windows Operating System Has More Programs Available. More Choice Is Better, Right?

Studies have shown that more choice doesn't bring more customer satisfaction; it actually brings more anxiety. Too many choices lead to confusion, and too few obviously create a feeling of scarcity. I once entered a small food shop in a village in Belarus in the former Soviet Union and found just one canned vegetable: a brand of tinned peas from Bulgaria, stacked in a pyramid on an otherwise empty shelf to take up more room. I was not happy with my options.

Apple's iPhone store offers around [one million apps](#). But in 2012, just the top 100 generated [one third of all the money!](#)

You won't use many of the hundreds of thousands of software applications that exist; in fact, you probably won't use more than three or four. Even the app developers complain that with so many apps, it's very hard for theirs to be discovered.

It's the same with computer software. You'll find many more software titles for the Windows PC, but you'll only use a handful. You'll probably want a Web browser (e.g., Internet Explorer, Firefox, Google Chrome, or Apple's Safari), an office suite (e.g., Microsoft Office), and easy-to-use music and video storage programs, such as Apple's iTunes and iPhoto.

[Aren't Apple Computers Much More Expensive Than Windows Machines?](#)

Windows machines can be made by anyone, so the competition between the manufacturers drives down prices. You can get a plain Jane computer running Windows for a lot less than a Mac.

[I Hear That Apple Computers Are for Artistic People, and I Consider Myself to Be Creative. Will I Be Stymied by a Windows Computer?](#)

Probably not. The little-known secret is that for almost every computer use, there's either a version of the same software that works on both Apple and Windows machines, or there's an equivalent program from the same or another developer that can do an equally good job.

For example, Adobe makes Photoshop in both Mac and Windows versions; Microsoft's famous Office suite of programs also exists for both operating systems (although the designs are somewhat different). iTunes comes in Mac and Windows versions. Although Apple's iPhoto is only for Macs, there are Windows programs (such as Google's free Picasa) that do the same job of storing photos and allowing users to manipulate them.

So Why Shouldn't I Buy a Windows-Compatible PC?

One negative feature of Windows computers is that they attract many more viruses than Macs. Computer hackers around the world are always probing the Internet, looking for vulnerable computers they can infect with invisible programs that can search your computer for hidden account names and passwords, surreptitiously harness your computer to serve up harmful data to other unsuspecting users, or simply inflict wanton mayhem on your machine just for fun.

There are many more viruses that affect Windows computers than Macs. Whether that's so because Windows machines are an easier target or whether it's because Windows machines are more vulnerable is beside the point.

The bottom line: If you use a Windows machine, be prepared to find your computer under attack from evildoers, bad people around the world who will try to infect your computer with programs to steal your personal information, freeze your machine just because they can, and even recruit your machine in an unwillingly conscripted army of computers to attack Web sites and bring them down.

But I'll Save a Lot of Money with a Windows Machine, Right?

Given that anyone can manufacture a PC designed to run Windows, everyone has, and the results are not always good. Just because you got a PC on the cheap doesn't mean you got a bargain.

Aren't Windows Machines Much Easier to Use Than They Used to Be?

Yes, they are. The problem is that although Windows has gotten much easier to use now than it used to be, it performs more like a Mac, many of its commands remain nonintuitive. If you have trouble remembering routines, a Windows machine may not be for you.

What Are the Reasons to Buy a Mac?

Macs are easier to use because they're easier to figure out. Many applications, including Apple's iPhoto photo storage program and iTunes (also available for Windows PCs), can be learned without reading any manuals. Apple's Time Machine backup system automatically backs up your hard drive, keeping multiple copies of its contents for months at a time so you can easily find a copy of a file that you created a year before.

Aren't All Computers Built by the Same Handful of Chinese Companies?

They may be, but each company that sells Windows PCs has its own set of build quality standards and tolerances it will accept. When you buy a Mac, you buy a computer made by Apple (or at least by Apple's contracted manufacturers), because only Apple can make computers that run its operating system. So you don't need to worry much about shabby build quality.

Is It Really True That Macs Don't Get Viruses? That Sounds Like an Urban Myth.

Unlike Windows PCs, Macs can be infected by only a few viruses. In twenty-seven years of using Macs, I've had two viruses, neither of which did any apparent damage to my computer, and they were easy to remove with a free antivirus program.

For years, the tech industry has been predicting that Macs would eventually get as many viruses as Windows machines as soon as the population of Mac users increased. The thought was that the cost-benefit ratio for the hacking community would improve and make

profitable to write more viruses.

In 2010, Apple claimed that 20 percent of all new computers sold ran on the Mac operating system, and other stats say that more than 7 percent of American computer users have Macs, indicating a definite increase from about 2 percent [a few years ago](#). Still, only a handful of viruses have attacked Macs, and most affect only a small minority of users.

Can I Get the Programs I Need for a Mac?

As stated earlier, you may not find every Windows program in a Mac version, but most are available. Those that aren't typically have a similar Mac program that does much the same.

Computers Scare Me. What If the Computer Crashes?

It's been a long time since computers passed from interesting but superfluous tools to must-have devices. That's true whether you live in Seattle or Soweto. Today, everything happens on the Internet, from education to paying bills to watching TV. But computers do crash. When Apple first introduced its OS X operating system, the company claimed it was so advanced that even if a program did crash, it would not freeze the entire machine—only the program. It wasn't true. It hasn't happened often, but there have been times when one program freezing did cause my entire machine to lock up.

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