

“*History of Computer Science*”

Mike Thomas

Bibliography List

All books are first editions, first printings, cloth bound unless otherwise stated.

Bailey, James. **After Thought: The Computer Challenge to Human Intelligence.** New York; Harper Collins, 1996.

I included this because Bailey brings up a good point: we should base future computer design on how advanced circuits work and not on how our brain functions if we want the best computers. Designs based on human intelligence may be lacking.

Brockman, John. **Digerati: Encounters with the Cyber Elite.** San Francisco, Hardwired, 1996

Interviews with some "big thinkers" and "pioneers" in the Internet.

Ceruzzi, Paul E. **A History of Modern Computing.** Cambridge, Mass; MIT Press, 1998  
A straightforward and comprehensive account of the electronic digital computer's first five decades. Good stuff.

Crandall, Richard and Levich, **Marvin.** *A Network Orange: Logic and Responsibility in the Computer Age.* New York; Springer-Verlag, 1998

*A Network Orange* provides a compelling argument that the emergence of computers as an elemental force in our modern society must be viewed with a skeptical--and sometimes negative--eye. Crandall and Levich, one a mathematician and a scientist, the other a philosopher and proponent of the liberal arts, present a balanced viewpoint of both sides of this phenomenon.

Creiner, Daniel. **AI: The Tumultuous History of the Search for Artificial Intelligence.** New York; Basic Books, 1993.

While being technical in some parts this is a very good book on the people in this search.

Cringley, Robert X. **Accidental Empires; How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition, and Still Can't Get a Date.** Reading, Mass; Addison-Wesley, 1992

This is the book that started it all for me. A very readable history of the microcomputer. If Gary Kindal had been home, he might have been the richest person in the world. This was the basis for a PBS show, "Triumph of the Nerds".

Davis, Eric. **Techgnosis: Myth, Magic, and Mysticism in the Age of Information.** New York; Harmony Books, 1998

Can information be more important than itself? The myth of "information overload" can also be called a belief if you give information too much importance. At what point do we surrender ourselves to information?

Denning, Peter J. and Metcalfe, Robert M. **Beyond Calculation: The Next Fifty Years of Computing.** New York; Copernicus, 1997

If anyone had a good crystal ball, these two do. Metcalfe especially has always been in on the next big thing. (Currently he's working on healthcare and the web.) Now that we have the power in computing to go beyond the binary, what do we do with it?

Dertouzos, Michael. **What Will Be: How the New World of Information Will Change Our Lives.** New York; Harper Collins, 1997

Head of the Computer Science Department at MIT, Dertouzos looks into his crystal ball. Pay close attention to the future of the book.

Dery, Mark. **Escape Velocity: Cyber Culture at the End of the Century.** New York; Grove Press, 1996

Are we destined to talk with Alice in Australia and get to know everything about her while not knowing the name of the person sitting at the computer next to us? This writer thinks so.

Dibbell, Julian. **My Tiny Life: Crime and Passion in a Virtual World.** New York; Henry Holt, 1998

Only published in quality paperback.

The writer describes the experience of living in a make-believe world in cyberspace and how much fun it can be until someone kills your make-believe self.

Dyson, Esther. **Release 2.0: A Design for Living in the Digital Age.** New York; Broadway Books, 1997

Dyson is one of the "big thinkers" of the Internet. Her thoughts on what do with it are included. I believe she is currently working on getting Eastern Europe online.

Freedman, David H. and Mann, Charles, C. **At Large: The Strange Case of the World's Biggest Internet Invasion.** New York; Simon & Schuster, 1997

I am not going to spoil this book for you by describing it any further. You know enough already. If you buy the book and read it and don't like it, I will give you twice what you paid for it.

Gates, Bill. **The Road Ahead.** New York; Penguin, 1995

Companion interactive CD-ROM unopened.

The head of Microsoft gives his look into the crystal ball. He seems to need it polished since he missed the coming of the World Wide Web. In the paperback version, he makes up for this to his credit.

Gilster, Paul. **Digital Literacy.** New York; John Wiley & Sons, 1997.

Advanced Readers Copy. Quality Paperback.

Digital literacy is defined as "a way of reading and understanding information that differs from what we do when we sit down to read a book or a newspaper." The book's goal is to provide a means of understanding the information we receive on our computers. After all, we're living in an era in which "if you can think it, it can be digitized."

Grove, Andrew S. **Only the Paranoid Survive: How to Exploit the Crisis Points that Challenge Every Company and Career.** New York; Doubleday, 1996  
The head of Intel gives tips on how to be the best.

Guisnel, Jean. **Cyberwars: Espionage on the Internet.** New York; Plenum Press, 1997  
A good summary of what is happening on the Internet concerning terrorism of all kinds. As firewalls get better, so do the hackers.

Hills, Daniel. **The Pattern on the Stone: The Simple Ideas That Make Computers Work.** New York; Basic Books, 1998  
How computers simply work, simply put. Once we understand this, we better understand our relationships with computers.

Hiltzik, Michael. **Dealers of Lightning: Xerox PARC and the Dawn of the Computer Age.** New York; Harper Collins, 1999  
These are the men and women who did it all. From the invention of the mouse to the GUI (Graphic User Interface), to object-oriented programming. If Xerox had paid attention to them Bill Gates wouldn't be the richest man in the world. When Apple sued Microsoft over the look and feel of Windows, Microsoft's defense was Apple stole from Xerox PARC, which was true.

Horn, Stacy. **Cyberville: Clicks, Culture, and Creation of an Online Town.** New York; Warner Books, 1998  
How communities are created online. They are not like East Lansing.

Hudson, David. **Rewired: A Brief (and Opinionated) Net History.** Indianapolis; Macmillan Technical Publishing, 1997  
Hudson talks to some of the key players in the founding of the Internet who really hate how commercial things seem to be now.

Huff, Chuck, and Finholt, Thomas. **Social Issues in Computing: Putting Computing in its Place.** New York; McGraw-Hill, 1994  
A textbook which attempts to keep us from staring at computer screens all day. Written before the Web was popular it is now outdated, but historically fun to look at.

Kaufmann, William J. III, and Smarr, Larry L. **Supercomputing & the Transformation of Science.** New York; Scientific American Library, 1993  
Basically, where were at in 1993 and how computers were changing the way science was researched.

Kidder, Tracy. **The Soul of a New Machine.** Boston; Atlantic Monthly Press, 1981  
First edition, fourth printing. Winner of the Pulitzer Prize and the American Book Award. Tracy Kidder recounts the feverish efforts of a team of Data General researchers to create a new 32-bit super-minicomputer. A compelling account of individual sacrifice and human ingenuity.

Kurzweil, Ray. **The Age of Spiritual Machines: When Computers Exceed Human Intelligence.** New York; Viking, 1999

Imagine in 20 years, after the human genome is completely uncovered, and we have the ability to map the human brain with better imaging devices. Once the brain is mapped at a subatomic level, can it be recreated in a machine? Some people think so. And what happens when these computers with my brain links with your computer brain? Will I ever forget your name? If I store my brain on a disk, will by great-great grandkids get to see my memories on a video screen? What happens to us when we no longer have any secrets?

Leonard, Andrew. **Bots: The Origin of a New Species.** San Francisco; Hardwired, 1997

A bot is a program that can go out on the Internet and collect information for you while you are doing something else. But that is just one of the things these wonderfully intelligent software programs can do for you.

Littman, Jonathan. **The Watchman: The Twisted Life and Crimes of Serial Hacker Kevin Poulsen.** Boston; Little, Brown & Co., 1997

Sometimes a computer can be used for good, sometimes for evil. Mr. Poulsen comes off as just confused.

McCartney, Scott. **Eniac: The Triumphs and Tragedies of the World's First Computer.** New York; Walker and Co., 1999

McCartney not only deals with the technical aspects of the Eniac but also the legal hassles of getting the machine recognized as the first. Really a story of the people involved more than the machine itself.

Moody, Fred. **I Sing the Body Electric: A Year with Microsoft on the Multimedia Frontier.** New York; Viking, 1995

Microsoft was big on CD-ROMs in the early to mid 1990's. They thought all information would be transmitted on these disks. This is the story of how they attempted to corner the market on this. Unfortunately for Microsoft, the World Wide Web is how most computer users get information today, but this is a very good look at what might have been.

Murray, Charles J. **The Supermen: The Story of Seymour Cray and the Technical Wizards Behind the Supercomputer.** New York; John Wiley & Sons, 1997

Basically the story of how they did it. Don't try this at home with some brains on your side.

Negroponte, Nicholas. **Being Digital.** New York; Borzoi, 1995

Negroponte's text is mostly a history of media technology rather than a set of predictions for future technologies. In the beginning, he describes the evolution of CD-ROMs, multimedia, hypermedia, HDTV (high-definition television), and more. The section on interfaces is informative, offering an up-to-date history on visual interfaces, graphics, virtual reality (VR), holograms, teleconferencing hardware, the mouse and touch-sensitive interfaces, and speech recognition. Granted, he was one of founders of MIT's

Media Lab, so the book relies heavily on hardware. In the last chapter he warns of going too far but in 2000, we are already past the point he didn't think we'd reach until 2020.

Norman, Donald A. **The Invisible Computer: Why Good Products Can Fail, The Personal Computer is so Complex, and Information Appliances are the Solution.** Cambridge, Mass; MIT Press, 1998

I was hoping this would deal with how nanotechnology affects our lives but instead this work deals mainly with how "thinking toasters" will change our lives and let corporations communicate with their products in the markets place, and possibly repair or improve them without the consumer coming back to the point of purchase.

Quittner, Joshua, and Slatalla, Michelle. **Speeding the Net: The Inside Story of Netscape and How it Challenged Microsoft.** New York; Atlantic Monthly Press, 1998  
Written before AOL and Netscape merged, this book tells the tale of how Netscape took advantage of Microsoft's missing the "web thing" and built a business big enough to get the Justice Dept. involved.

Reid, Robert H. **Architects of the Web: 1000 Days that Built the Future of Business.** New York; John Wiley & Sons, 1997  
Story of the some of the people there at the beginning of the commercialization of the Web. Pay stick attention to the part about Yahoo if you don't think N.B. Forrest was right when he said, "He who gets there firstest with the mostest wins."

Robertson, Douglas S. **The New Renaissance: Computers and the Next Level of Civilization.** New York; Oxford University Press, 1998  
Author feels the next great step will occur because of the communication possibilities of the computer chip. Looking back at printing, and how much that changed civilization, he feels the next change will be much more significant.

Rochlin, Gene I. **Trapped in the Net: The Unanticipated Consequences of Computerization.** Princeton; Princeton University Press, 1997  
I used to spend the 20-30 hours a week I'm online, doing something else. What was it? Rochlin wants us to think about this, and think hard. Could I go a month without my computer? What does it say about me if the answer is no.

Seabrook, John. **Deeper: Adventures on the Net.** New York; Simon & Schuster, 1997  
Quality Paperback - First Tombstone imprint edition 1998.  
People create lives online they like better than their lives in the SCREW (So Called Real World).

Segaller, Stephen. **Nerds 2.0.1: A Brief History of the Internet.** New York; TV Books, 1998.  
Companion to the PBS Series of the same name. Deals with the usual suspects from ARPANET, to BBN, to Vint Cerf. A much better book along this line is Where the Wizards Stay Up Late. I am still looking for a good copy of that book. I do recommend

the PBS video however, if you're interested. (Available from PBS Home Video at [www.pbs.org](http://www.pbs.org).)

Shasha, Dennis, and Lazere, Cathy. **Out of Their Minds: The Lives and Discoveries of 15 Great Computer Scientists.** New York; Copernicus, 1995  
Pretty much what the title says.

Slatalla, Michelle, and Quittner, Joshua. **Masters of Deception: The Gang that Ruled Cyberspace.** New York; Harper Collies, 1995  
These guys did it all; hacked into AT&T, collected credit reports from TRW, etc. Some aspects of the book are kind of technical but the laypersons I have given this too have liked it.

Slater, Robert. **Portraits in Silicon.** Cambridge, Mass.; MIT Press, 1987  
First MIT Press quality paperback edition 1989, third printing 1992.  
This book is a series of bibliographic essays on the people behind the computer revolution. The subjects range from hardware builders to software writers to those that expanded the uses of computers.

Stoll, Clifford. **Silicon Snake Oil: Second Thoughts on the Information Highway.** New York; Doubleday, 1995  
Stoll doesn't hate computers, he just thinks they ought to be a tool like a hammer, not a friend like a beloved pet.

Sudnow, David. **Pilgrim in the Microworld: Eye, Mind, and the Essence of Video Skill.** New York; Warner Books, 1983  
Sudnow's kids kill him in video games at the arcade. He later discovers they are not only playing against him, they are figuring out what the programmer intended and using that information to beat him. In the end, they don't play against the game or against him but with the game against him.

Swisher, Kara. **AOL.COM: How Steve Case Beat Bill Gates, Nailed the Netheads, and Made Millions in the War for the Web.** New York; Random House., 1998  
Another person who took advantage of Microsoft missing the coming of the Web. Written before AOL's merger with Time-Warner, a new edition is planned soon.

Turkle, Sherry. **Life on the Screen: Identity in the Age of the Internet.** New York; Simon & Schuster, 1995  
Who are you when you can become anyone you want online; changing your age, your race, your sex, and the fact that you don't need any of those things to have an identity online.

Unman, Ellen. **Close to the Machine: Technophilia and its Discontents.** San Francisco; City Lights, 1997  
Only published in quality paperback. This is one of the few books which relates programming from a female perspective. Ullman also deals very well with the problems

which rise when a programmer becomes a manager of programmers. (Not always, okay ...NEVER a good idea.)

Wallace, Patricia. **The Psychology of the Internet.** Cambridge, England; Cambridge University Press, 1999

A clear, concise, and comprehensive overview of the emotional and behavioral dimensions of life online. Also, a good summing up of some work that has gone before.

Wertheim, Margaret. **The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet.** New York; Norton, 1999

Ever since the online world began, its inhabitants have puzzled over a fundamental question: What sort of space, exactly, is cyberspace? Is it just a metaphor, a vivid shorthand for the abstract complexity of computer networks? Or is it in some sense actually a space that parallels the one our bodies live in? Wertheim's impressively argued answer in *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet* is that it is both, and more. Cyberspace, she claims, at once exposes and fulfills a long-time cultural yearning for the type of immaterial space, the realm of the soul, that was written out of the West's cosmological picture when science displaced medieval theology.

Yourdon, Edward. **Rise and Resurrection of the American Programmer.** Upper Saddle River, New Jersey; Prentice Hall, 1996

In 1992, Yourdon wrote *The Decline and Fall of the American Programmer*, warning of impending loss of leadership by American software engineers. But a great deal has changed in three years, and Yourdon now sees a complete reversal of many of the trends he previously documented, as well as new trends such as the WWW, Java, "Good Enough" Software, and the enormous impact of Microsoft on the world of software and computing, that together signify the Resurrection American software engineering. I am still looking for a great, first edition of his first book.

Zaleski, Jeff. **The Soul of Cyberspace: How New Technology is Changing Our Spiritual Lives.** San Francisco; Harper Collins, 1997

This work explores how the Internet and the World Wide Web have changed some aspects of religion and faith.