

Bill Hammack

Further Reading

As a media practitioner and not a theorist, I have made no original contributions in this book to understanding new media. Instead I have applied the insights and even used the examples from the books listed below. I found them extremely helpful in getting my bearings in the landscape of new media, but bear in mind that the best way to learn new media is to be a regular user of it. Nothing teaches in this area like participation.

Anderson, Chris, *The Long Tail: Why the Future of Business is Selling Less of More* (New York: Hyperion, 2006), 238 pp.

Anderson wrote this essential text in an approachable, even breezy style - as one would expect from the editor of *Wired* magazine. He lays out clearly how the digital distribution of goods changes fundamental ideas about commerce, although he overstates a bit the degree to which the “future of business is selling less of more.” Still it has great utility in showing how and why engineering communicators can now aggregate audiences previous unavailable to them.

Heath, Chip, and Dan Heath, *Made to Stick: Why Some Ideas Survive and Others Die* (New York: Random House, 2007), 294 pp.

I have not explicitly used this text in the book, yet it influenced deeply the examples I chose. It is *the* book I recommend to all who want to communicate engineering more clearly and effectively, even though you will not find one iota of science or engineering in it. The Heath brothers delineate clearly why most communication fails and give clear guidance on how to make it succeed. I use their approach so often that I made a four-page outline of *Made to Stick's* essential ideas. You can find a copy of my outline at www.engineerguy.com.

Why Engineers Need to Grow a Long Tail

Jenkins, Henry, *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2006), 308 pp.

Written by an academic, this book delves deeply into the interaction of new and old media. It reminds that the impact of new media is not just Facebook and Twitter, but the intersection of the internet with traditional forms like movies and television. His chapter on *American Idol* will give you deep insights into why such a show works; his analysis of *The Matrix* highlights the impact of social media on a film franchise. An eye-opening book; although, as one would expect from case studies, it is very detailed.

Shirky, Clay, *Here Comes Everybody: The Power of Organizing Without Organizations* (New York: Penguin Press, 2008), 326 pp.

Shirky's thesis that we will all work together in different ways because of social media need not detract a reader from his insightful analysis of what makes new media tick. In this regard he is unparalleled. Read this and the *Long Tail* and you'll have all the new media "theory" you need to pass safely through the Web 2.0 portal.

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About the Author

BILL HAMMACK'S work has been recognized by an extraordinarily broad range of scientific, engineering, and journalistic professional societies. From his engineering peers he's been recognized with the ASME's *Church Medal*, IEEE's *Distinguished Literary Contributions Award*, ASEE's *President's Medal*, and the AIChE's *Service to Society Award*. From journalists he has won the trifecta of the top science/engineering journalism awards: The National Association of Science Writer's coveted *Society in Society Award*; the American Chemical Society's *Grady-Stack Medal* - an award previously won by Isaac Asimov and Don Herbert (Mr. Science) - and the American Institute of Physics' *Science Writing Award* -- all typically given to journalists. *Make Magazine* described Bill as a "brilliant science-and-technology documentarian" noting that his recent video work "should be held up as models of how to present complex technical information visually."

Hammack, a Professor of Chemical & Biomolecular Engineering at the University of Illinois – Urbana, is a leader in using mass media to communicate engineering to the public. Pioneering a new role for an engineering professor, he created a remarkable public radio series called "Engineering & Life," in which he shared with the public the wonder of engineering, while also emphasizing the responsibilities associated with technological change. His

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hundreds of radio pieces have been heard on public radio's premier business program *Marketplace*, which has an audience of six million, and around the globe on Radio National Australia's *Science Show*.

In 2005-06, he broadened his “audience” to include senior government policymakers. He served a year as a Senior Science Adviser at the U.S. Department of State. At the U.S. Department of State, Hammack served as an energy adviser for the Six-Party Talks to denuclearize the Korean Peninsula, helping to develop a framework for U.S. negotiations. Additionally, he served in the Department of State's Bureau of International Security and Nonproliferation, representing the U.S. in successful talks with Vietnam to remove highly enriched uranium, which can be used to make a small nuclear bomb. Through his pioneering work, he is creating technologically literate citizens and government officials who will have a huge impact on the health of our democracy, our national economic productivity, and foreign policy.

Why Engineers Need to Grow a Long Tail

A Note on the Type

The text for this book was set in Bembo. In 1929, Stanley Morrison created, for Monotype, a 20th-century revival of an old-style serif or humanist typeface first cut by Francesco Griffo around 1495. Originally trained as a goldsmith, Griffo's typeface departed from the slavish dependence on pen-drawn characters. Griffo's precision skills, acquired from engraving steel, allowed him to refine the type far beyond that of a pen. Bembo - named after its first use in the book *Journey to Mount Aetna* written by the young Italian humanist poet Pietro Bembo - features nearly all the characteristics that define old-style humanist designs; for example, a minimal variation in thick and thin stroke weight and angled top serifs on lower-case letters. It proved very popular with British publishers. In the 1930s, book designers chose it frequently, making it a dominant letter form.

Chapter headings were set in Perpetua, a typeface designed by British sculptor, typeface designer, stonemason, and printmaker Eric Gill (1882–1940). It is a transitional typeface because of its high stroke contrast and bracketed serifs. Gill began work on Perpetua in 1925 at the request of Stanley Morison, typographical adviser to Monotype. Perpetua's first use, appropriately, was in a limited edition of a new translation by Walter H. Shewring of *The Passion of Perpetua and Felicity* (1929). It appeared most recently on the covers of the Artemis Fowl book series and in Barack Obama's 2008 campaign logo.

As appropriate for a book on new media, much of the information above came from *Wikipedia*.

Engineering

OFTEN the details of new media get lost in an alphabet soup that usually begins with an "i" - the iPod, the iPad, the iTouch. Yet the essence of new media is not in these devices, but in their use. This short primer shows engineers how to think about new media by focusing on the deeper issues of communicating in this new user-generated era. Readers will grasp the mindset of new media and gain an understanding that will long outlast the latest social networking tools. The book will empower practicing engineers to develop new, powerful ways to help the public understand what engineers do and why engineering is important. Perhaps most importantly, this primer gives engineers the foundation for reaching the next generation of innovative engineers.



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Literary Contributions Award, ASEE's President's Medal, and the AIChE's Service to Society Award. From journalists he has won the trifecta of the top science/engineering journalism awards: The National Association of Science Writer's coveted Science in Society Award; the American Chemical Society's Grady-Stack Medal, and the American Institute of Physics' Science Writing Award -- all typically given to journalists. Make Magazine described Bill as a "brilliant science-and-technology documentarian" noting that his short films "should be held up as models of how to present complex technical information visually." He is a Professor of Chemical & Biomolecular Engineering at the University of Illinois - Urbana.

