

The Long Tail and libraries

A revolutionary new economic theory says that the digital future is one of abundance—when the bottlenecks that stand between supply and demand disappear and everything becomes available to everyone. How will libraries fit in?

BY TOM STOREY

EACH MONTH, THREE MILLION PEOPLE ORDER 21 MILLION MOVIES from NetFlix, an Internet, rent-by-mail DVD movie service, according to USNews.com. About 4 million users download more than 12 million songs from the Apple iTunes digital jukebox says CNet News.

Each day, users do more than 150 million searches on Google, Yahoo! Search, MSN and other Internet search engines, according to SearchEngineWatch.com. About 31 million go to Amazon.com, and another 42 million visit Ask Jeeves based on estimates from Nielsen NetRatings and Red Herring.

Conversely, network television audience share has fallen 33 percent over the last 20 years, according to Nielsen Media Research. Radio listenership is at a 27-year low based on data from Duncan's American Radio. Newspaper circulation, which peaked in 1987, continues to tumble, dropping 2 percent over the last six months, the Audit Bureau of Circulations says. Total magazine circulation has dropped to 1994 levels. And

music CD sales are down 21 percent from their high in 1999.

These numbers suggest a profound transformation is taking place in the way people research, learn, entertain themselves and find things out in a networked environment.

Chris Anderson, Editor-in-Chief at *Wired Magazine*, noted many of these trends in his seminal article, "The Long Tail," which has struck a chord in technology and media circles. The Long Tail is Anderson's business model for the digital age. It argues that the Web has started a complete

revolution in the movie, book and music businesses.

Basically, The Long Tail says that big changes are in store—in fact, already taking place—as a new digital media and entertainment economy emerges. Digitization and e-delivery are radically changing economic fundamentals and creating new markets for millions of niche items. No longer are megahits, blockbusters and best-sellers designed for mass audiences the Holy Grail to success and riches. The digital environment, with its low storage and distribution costs, offers a viable alternative: aggregate the obscure and unpopular with the popular and widely celebrated using an automated recommendation system to link the two.

The new economy is one based on abundance, infinite availability and unlimited shelf space and is driving Internet companies like Amazon and iTunes and NetFlix. They use personalization features and software filters—the user recommendations that say “users that like this item also like”—to help users move from the popular to the obscure in the tail of abundance.

What makes Anderson’s theory compelling is that it is the antithesis of traditional thinking, which focuses on squeezing millions from megahits—the 20 percent of books or movies or music that are the most

popular and, until now, the most profitable, supplying 80 percent of revenues. The traditional model was based on the scarcity of resources, high marketing and promotion costs, and the need to attract a large, local audience. Anderson’s article is available at www.wired.com/wired/archive/12.10/tail.html or at www.changethis.com/10.LongTail.

If Anderson’s theory is correct, and all media are in the throes of radical change, libraries may be well-positioned for this new era. The Long Tail is something they understand and have practiced for years, perhaps without realizing it, says Nancy Davenport, President, Council for Library and Information Resources. The model for how libraries have built their collections sounds a lot like The Long Tail. Whether it’s *New York Times* best-sellers or scholarly journals, libraries stock up on what they need to meet “high point” demand, she says, but also purchase less popular materials to fill out the collection and serve niches, which might be genealogy, travel or the history of furniture making. “Libraries are the edification of The Long Tail,” she says.

The Long Tail

is about how our economy and culture is shifting from mass markets to millions of niches. The term refers to the yellow part of the sales chart, which shows a standard demand curve that could apply to any industry, from entertainment to hard goods. The vertical axis is sales; the horizontal is products. The red part of the curve is the “hits,” which have dominated our markets and culture for most of the last century. The yellow part is the nonhits, or niches, which is where the new growth will come. The Long Tail is about the effect of the technologies that have made it easier for consumers to find and buy niche products, thanks to the infinite shelf-space effect and new digital distribution mechanisms, from digital downloading to peer-to-peer markets that break through the bottlenecks of broadcast and traditional bricks and mortar retail.

The two big points of The Long Tail theory are:

- 1 The yellow part potentially extends forever to the right.
- 2 The area under that line—the aggregate market of niches it represents—may become as big as the hits at the left.

Marylaine Block, a librarian who now is a speaker and consultant, agrees, saying that libraries are the original Long Tail. “Libraries have been in The Long Tail business for centuries. The only thing new about The Long Tail is that because of the Internet, the commercial world is just now discovering it. If you think about it, libraries and museums have always been the basic preservation mechanisms of all items, including those of limited popularity. And libraries have been offering public access to them not only for their own clientele, but to the rest of the world.”

Block says that before the World Wide Web and search engines, the printed National Union Catalog gave access to the holdings of thousands of libraries. Then several library cooperatives took the digital cataloging records provided by the Library of Congress and made holdings of even more libraries from around the world available online. These resources became the backbone for a system that greatly sped the identification and transfer of relevant books, journal articles and documents among researchers and information seekers.

“The Internet has added to that capability with search engines for the holdings of rare and used book dealers, and even with eBay, but it has in no way replaced it,” she says.

Says Robert H. McDonald, Associate Director of Libraries for Technology and Research, Florida State University, “Libraries extend The Long Tail by utilizing the Internet to link to electronic resources, inter-library loan and other digital library materials.”

So if libraries have lived The Long Tail for many years, is there no impact on them from this new economic model? Not quite! Libraries need to move from stage one of The Long Tail—digital catalogs of physi-

cal items—to stage two—digital catalogs of digital goods. Libraries need to embrace the new digitization and networking capabilities inherent in The Long Tail, which create some intriguing possibilities. Among them:

Make Everything Available

The Long Tail says Make Everything Available. It's now economical to store everything, popular, less popular and obscure. They're only bytes on a hard drive without the cost of shelf space or packaging or distribution.

This suggests that collections need to provide a broad, seamless range of information that includes not only local holdings but those of other libraries and commercial publishers. It also suggests that libraries digitize their collections to make them available electronically as well as physically.

“I am curious about the effect that The Long Tail will have on our book collections,” says McDonald. “Most users prefer online resources because they can be accessed anywhere. But the maintenance and upkeep of the legacy

book stacks in many ways prevents the further extension of what libraries are trying to do with electronic resources.”

McDonald thinks The Long Tail provides compelling evidence that research libraries should consider digitizing their entire collections in order to store legacy print collections off-site. He says that currently, libraries have a lot of items that don't circulate. About 80 percent of a library's circulation is from 20 percent of its collection. Offering more online content would not only respond to user preferences but also could drive the use of print materials.



Help Me Find It

The Long Tail says Help Me Find It. Provide familiar entry points, make sure there is enough choice, and let users follow the contours of their likes and dislikes. Long Tail businesses like Amazon and NetFlix use recommendations to do this, guiding and directing users along their discovery path, from the Head into the Tail. McDonald thinks that The Long Tail and its user recommendations will change computerized searching at libraries.

“I definitely see the search and discovery mechanism devolving from the OPAC that is built into current LMS systems because these do not handle digital rights mechanisms well nor do they search across other information services well,” he says. “As new metasearch tools evolve so will our ability to provide access to the wealth of online full-text items extending from the current lease source back to Long Tail items that are permanently available from our online systems.”

Block thinks that libraries should use recommendations the way that Amazon does, off to the side, with lists on similar kinds of titles.

Cut The Price In Half, Then Lower It

The Long Tail says Cut The Price In Half, Then Lower It. Price according to digital costs, not physical ones. When you lower the price, people tend to buy more—possibly a lot more, according to The Long Tail model. While libraries are free to users, the point that low prices and digital delivery create increasing demand is important to libraries, which essentially

pay the bill for their users.

“As we offer more online content we will get demand for more online content because libraries cover expansive areas of literature for many disciplines, not just what’s licensable in digital audio format,” says McDonald. “One successful transaction leads to more citations of which we will need more online content.”

To Davenport, lower prices are an area where The Long Tail model breaks down for libraries largely because they are content renters rather than content owners in the digital world. Publishers benefit from lower storage and distribution costs, but libraries pay subscription fees, which usually increase every year. “There’s an economic flip to the equation for libraries. The Tail gets expensive. Libraries are concerned about the spiraling costs of the paperless society, which so far has only created more scholarship faster to bring into the collection.” The Long Tail suggests that prices for e-articles, e-journals and e-books should be much lower, she says.

Whether The Long Tail becomes the definitive digital business model, libraries know they are operating in a different world today, says Davenport. The digital world presents a whole new set of challenges, and libraries need to reposition themselves. Among the questions: will digitization revitalize the use of physical materials? What does collection development mean in the digital environment? How will the concept of discovery change?

Davenport says libraries are dealing with a generation used to having everything at their fingertips, à la The Long Tail.

“Immediacy is standard operating policy. This is our new performance measure.”

Long live The Long Tail. ■

The “Library Tail” on the Web

OCLC is aggregating library collections physical and digital, general and specific, popular and obscure, and linking them to Web search engines and bookselling sites with the Open WorldCat program. The aim is to help libraries mobilize their collective resources and release the value of their collections on the open Web.

The result? Internet searchers move from the Web to their local library. And OCLC members are more visible and their collections more accessible from sites where many people start their search for information. For more information about Open WorldCat, visit www.oclc.org/worldcat/open.

Q&A with the author of *The Long Tail*

In an October 2004 story, *Wired Magazine* Editor Chris Anderson introduced a new trend he called 'The Long Tail' and explained how this new economic model based on digital technology was changing our world. Nine months later, the trend has a devoted and growing following, and Anderson has a lucrative book contract for a more in-depth treatment of *The Long Tail*.



What led to *The Long Tail*? How did you come up with it?

At *Wired*, we are constantly looking at underlying technological trends and the next cycle of change. *The Long Tail* was an insight I had studying TiVo, Rhapsody, iTunes and Amazon and interpreting new data from their Internet sales of music and books and movies.

Why should libraries be interested?

They are increasingly connected through shared databases and interlibrary loan networks. Thus, they are able to effectively extend their shelves manyfold, connecting their individual collections into a vast supercollection that can go far further down the Tail than any single institution could afford. In other words, networks are turning individual libraries into what amounts to one huge virtual Long Tail aggregator.

The Long Tail isn't new, many people claim. How would you respond?

One of the signs of a great idea is that people feel like they've known it forever. That, at least, is what I tell myself when people suggest that the concept of *The Long Tail* predates my article of the same name. It is not new that powerlaw and other distributions have "heads" and "tails." It is also not new that some tails are longer than others. To be precise, what I coined was the notion of looking at the tail itself as a new market. The use of the proper noun (including "The") is not incidental, but is intrinsic to the

observation that we have historically looked at the market at the head of the curve in isolation, and we can now shift our gaze to the right and see that the tail is another market. The notion of two markets—The Head and The Long Tail; one familiar, the other long ignored but now emerging—is at the core of the thesis and explains the initial-caps TLT construction I've used.

What about digital rights management and *The Long Tail*? Won't content owners be hesitant to make so much available electronically?

I believe in the value of protecting intellectual property rights, but I'm opposed to overzealous extensions and implementations of those protections. Copyright good; infinite copyright bad. Piracy bad; treating everyone like a pirate worse. But equally, I believe in putting the consumer first. Consumers want more content, easier-to-use technology and cheaper prices. If some form of DRM encourages publishers, consumer electronics makers and retailers to release more, better and cheaper digital media and devices, that's not necessarily a bad thing. This is just being realistic: much as we might want it to be otherwise, content owners still call most of the shots. If a little protection allows them to throw their weight behind a lot of progress towards realizing the potential of digital media, consumers will see a net benefit. The real question is this: how much DRM is too much? Clearly the marketplace thinks that the protections in the iPod and iTunes are acceptable, since they're selling like mad. Likewise,

the marketplace thought that the protections in Sony's digital music players (until recently, they didn't support MP3s natively) were excessive and they rejected them.

Tell us what The Long Tail isn't?

There are many distortions of the term, but the most common one is to use it as a newly-positive synonym for "fringe." Invoking The Long Tail is not a magic wand to explain away the apparent lack of demand for what you've got. The fact that something isn't popular doesn't mean that it's just a matter of time before it will benefit from all sorts of powerful demand-creation Long Tail effects. More likely, it's just not good enough to be commercially interesting, and probably never will be. As I've mentioned in the original article, for Long Tail effects to work, you need both a head of relatively few hits and a tail of many niches, so that recommendations and other filters can lead consumers from one to the other. A tail without a head is too noisy and apparently random to get consumer traction; people need to start with the familiar and then move, via trusted recommendations, to the unfamiliar. Likewise a head without a tail is too limited in choice; the odds of finding a niche you want are too low to bother exploring much beyond what you already know. If what you're selling is fringe, it may well enjoy Long Tail benefits, but only if it can fit nicely into an existing market that has the capacity to drive demand. If that market doesn't exist, it's unlikely that throwing some niche products out there is going to create it. Even if it does exist, those products will reach their audience only if the filters and recommendations are good enough to find them.



Does the rise of the Long Tail mean the fall of mass culture?

The short answer is that mass culture will not only get less mass, but that this is a trend that's already well underway. Let's start by defining mass culture. The usual test is the "watercooler effect," the buzz in the office around a shared cultural event, be it the finale of *The Apprentice* or the opening of the last *Star Wars*. The number of such events has been shrinking for years, driven mostly by the fragmentation of the television audience. Cable TV started this with its explosive increase in the number of shows broadcast at any one time, which soon resulted in half of American viewership moving to cable. The arrival of TiVo and other DVRs amplified this by taking the time component out, too. The result is that the day when most of America watched the same things on the same night is long gone. Today's top shows have Nielsen scores that wouldn't have put them in the top 20 two decades ago.

Likewise for popular music. By my count only ten of the top 100 best-selling albums were released in the last decade, and only four of those were in the last five years. So instead of the office water cooler, which crosses cultural boundaries as only the random assortment of personalities found in the workplace can, we increasingly have our own tribes. My tribe may have all picked up the "all your base" meme at the same time, but your tribe was into the steroid scandal. These days our water coolers are increasingly virtual, there are many different ones, and the people who gather around them are self-selected. We are turning from a mass market into a niche nation. ■

About Chris Anderson

Author of *The Long Tail*, Chris Anderson has been Editor-in-Chief of *Wired Magazine* since 2001. Under his leadership, *Wired* has been nominated for National Magazine Awards for General Excellence in 2002 and 2004. Previously, he was U.S. Business Editor, Asia Business Editor, (based in Hong Kong); and Technology Editor at *The Economist*. While at *The Economist*, he initiated its

Internet coverage and directed its initial Web strategy. Anderson's career began at the two premier science journals, *Nature* and *Science*, where he served in several editorial capacities. He holds a Bachelor of Science degree in Physics from George Washington University and studied Quantum Mechanics and Science Journalism at the University of California at Berkeley.