

INSIGHT ON TECHNOLOGY

THE LONG TAIL: BIG HITS AND BIG MISSES



The “Long Tail” is a name given to various statistical distributions characterized by a small group of events of high amplitude and a large group of events with low amplitude. Coined by *Wired Magazine* writer Chris Anderson in 2004, the Web’s Long Tail has since gone on to fascinate academics and challenge online marketers. The concept is straightforward. Think Hollywood movies: there are big hits and also thousands of films that no one ever hears about. In economics, it’s the Pareto principle: 20% of anything produces 80% of the effects. That means 20% of a product line produces 80% of the revenue, and by extension, 80% of the product line only returns 20% of the revenue. It’s these nonhit misses that make up the Long Tail. Anderson claims to have discovered a new rule: no matter how much content you put online, someone, somewhere will show up to buy it. Rather than 20:80, Anderson suggests the Internet changes the Pareto principle. Internet search, recommendation engines, and online social networks all enable niche products to be discovered and purchased. eBay would seem to be a perfect example. The online tag sale contains millions of items drawn from every Aunt Tilly’s closet in the world and still seems to find a buyer somewhere for just about anything, revenue that would not be realized without an online marketplace.

On the Internet, where search costs are tiny, and storage and distribution costs are near zero, Amazon is able to offer millions of books for sale compared to a typical large bookstore. The same is true of DVDs, digital cameras, e-books, and streaming videos. Wherever you look on the Web, you find huge inventories, and a great many items that few people are interested in buying. But someone is almost always searching for something. With 2.56 billion people online, even a one-in-a-million

product could find over 2,000 buyers. Researchers note that it isn’t just that some people search for strange things, but rather that most shoppers have a taste for both popular as well as niche products. The strength of “infinite inventory” online retailers like Amazon is that they can satisfy the broadest range of individual tastes. Unlike physical stores, such as Walmart and Sears, online merchants have much lower overhead costs because they do not have physical stores and have lower labor costs. Therefore, they can load up on inventory, including items that rarely sell. Researchers argue that one impact of the Internet is to alter the 20:80 rule to something more like 30:70, where the niche products make up a larger share of the revenues than in traditional catalogs or stores.

There are several implications of the Long Tail phenomenon for Internet marketing. Some writers such as Anderson claim that the Internet revolutionizes digital content by making even niche products highly profitable, and that the revenues produced by small niche products will ultimately outweigh the revenues of hit movies, songs, and books. For content producers, this means less focus on the blockbusters that bust the budget, and more emphasis on the steady base, focusing on creating a quantity of titles that have at least some audience. The Long Tail is a democratizing phenomenon: even less well-known movies, songs, books, and apps can now find a market. For economists, the Long Tail represents a net gain for social welfare because customers can find exactly the niche content they really want rather than just accept the “big hits” on the shelf. The Long Tail makes more customers happy, and the possibility of making money on niche products should encourage more production of “indie” music and film.

One problem with the Long Tail in the past is that people sometimes have had difficulty finding

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these niche products because they are—by definition—largely unknown. In their native state, the revenue value of low-demand products is locked up in collective ignorance. Here's where recommender systems come into play: they can guide consumers to obscure but wonderful works based on the recommendations of others. Netflix has spent millions in recent years on improving its recommender system.

Long-Tail keywords are another way marketers are trying to unlock the power of the Long Tail. Long-Tail keywords are phrases that a small but significant number of people might use to find products. For instance, instead of investing in keywords such as "shoes" or "men's shoes," a marketer focused on the Long Tail might choose a keyword like "purple Adidas running shoes." Another way marketers tap into the Long Tail is to create highly specific blog or other content, that they then promote through social media.

Social networks also make the Long Tail phenomenon even stronger. One online person discovers an unheard-of niche product and shares his or her feelings with others. A recent study found that popularity information of the sort produced in a social network spurs sales of niche products more than mainstream products because of the higher perceived quality of the niche product. If a lot of people say they like an obscure product, it means more to consumers than if the same popularity attaches to a mainstream product.

But some research casts some doubt on the revenue potential in the Long Tail. In an odd twist, the number of DVD titles online that never get purchased is increasing. Solid best sellers have

expanded and produce the vast part of online media revenues. A massive study of millions of digital downloads in England found that 75% of the digital titles were not downloaded even once. The Long Tail is a very lonely, quiet place. In reality, there seems to be more selling of less (the hits) than less selling of more (the misses). A U.S. study similarly found that 10% of the music titles at Rhapsody, a music site, produced 78% of the revenues. Researchers at Wharton examined over 17,000 movies at Netflix viewed by 480,000 users between 2000 and 2005. They found Long Tail effects missing: demand for the top 20% of movies actually expanded from 86% to 90%. While recommender systems are helpful for revealing niche content, they aren't very smart, and you still need several people to discover the niche product before alerting their friends. Recommender systems tend to recommend what the crowd likes. But niche products need serendipity to be discovered.

Both the Long Tail and the winner-take-all approaches have implications for marketers and product designers. In the Long Tail approach, online merchants, especially those selling digital goods such as content, should build up huge libraries of content because they can make significant revenues from niche products that have small audiences. In the winner-take-all approach, the niche products produce little revenue, and firms should concentrate on hugely popular titles and services. Surprisingly, contrary to what Anderson originally theorized, the evidence for online digital content increasingly supports a winner-take-all perspective. George Clooney: do not worry.

SOURCES: "Microsoft, Apps and the Long Tail," by Ben Bajarin, *Time.com*, July 8, 2013; "The Resurgence of Long-Tail Keywords in SEO," by Jayson DeMers, *Searchenginewatch.com*, March 18, 2013; "The State of SEO: What's Working Now," by Neil Patel, *Quicksprout.com*, January 21, 2013; "Article Marketing Tips: Using Long-Tail Keywords," by Steve Shaw, *Internet Business*, *ezinearticles.com*, August 26, 2012; "Goodbye Pareto Principle, Hello Long Tail: The Effect of Search Costs on the Concentration of Product Sales," by Eric Brynjolfsson, et al., *Management Science*, July 2012; "Recommendation Networks and the Long Tail of Electronic Commerce," by Gail Oestreicher-Singer, New York University, 2012; "Research Commentary - Long Tails vs. Superstars: The Effect of Information Technology on Product Variety and Sales Concentration Patterns" by Erik Brynjolfsson, Yu (Jeffrey) Hu, and Michael D. Smith, *Information Systems Research*, December 2010; "Anatomy of the Long Tail: Ordinary People With Extraordinary Tastes," by Sharad Goel, et al., *Proceedings of the Third ACM Conference on Web Search and Data Mining*, 2010; "How Does Popularity Affect Choices? A Field Experiment," by Catherine Tucker and Juanjuan Zhang, *Management Science*, May 2011; "Rethinking the Long Tail Theory: How to Define Hits and Misses," by Serguei Netessine and Tom Tan, *Knowledge@Wharton*, October 7, 2009; "Should You Invest in the Long Tail?," by Anita Elberse, *Harvard Business Review*, July–August 2008; "Superstars and Underdogs: An Examination of the Long Tail Phenomenon in Video Sales," by Anita Elberse and Felix Oberholzer-Gee, *Harvard Business School Working Paper Series*, No. 07-015, December, 2006; "From Niches to Riches: Anatomy of the Long Tail," by Eric Brynjolfsson, Yu Hu, and Michael Smith, *MIT Sloan Management Review*, Summer 2006; "The Long Tail," by Chris Anderson, *Wired Magazine*, October 2004.