



Do recommendation systems make the 'tail' longer or shorter?

By [Paul Belleflamme](#) © 26 April 2012 34



Earlier this month, Netflix (an American provider of on-demand Internet streaming media) offered some details about the working of its recommendation system. It is explained that recommendations are provided through various channels ("Top 10" lists, different genres appearing on the front page, ordering of movies) that are combined in a dynamic way. And apparently, the whole system is quite efficient: "[The company says that its customers are so confident in the system at this point that 75 percent of all movies watched by members come from recommendations.](#)"

Two weeks later, Splash.FM (a NewYork-based social music startup) [announced its intention to push recommendations several steps further.](#)

The site allows users follow friends and tastemakers in a Twitter-like fashion, share songs with their own network and "splash" the song recommendations of others to show their approval.

Users who "splash" a lot of songs and whose recommendations get reshared by others will over time accumulate a high "Splash Score," which is something like a [Klout](#) score for your music curation skills.

It is of course too early to know how well this new recommendation system will perform, but it will certainly help users in finding more easily songs that match their tastes.

But which songs? It is indeed interesting to assess the effect that recommendation systems have on the sales distribution of existing products (and, eventually, their effect on the provision of variety). One may care, in particular, for niche products (i.e., products with a small market potential). As Chris Anderson has made it popular with his [theory of the Long Tail](#), niche products are doing relatively better in the digital age so that the tail of the sales distribution becomes thicker (and longer). How does this long tail hypothesis withstand the spread of recommendation systems?

The question is far from simple. As explained in [Belleflamme and Peitz](#) (2010, p. 660):

While the long tail story refers to the diversity of aggregate sales, the discovery of better matches [made possible by recommendation systems] refers to diversity at the individual level. It might well be the case that people discover better matches through recommender systems but that they discover products which are already rather popular in the whole population. Hence, sales data in the presence of recommender systems may show more concentration at the aggregate level.

While this is an interesting insight, empirical analyses are needed to show whether recommendation systems indeed lead to more concentrated sales. One such, clever, empirical analysis is the one by [Oesterreicher-Singer and Sundararajan \(2010\)](#), who studied the influence of copurchase links on Amazon.com.

Here is a summary of their paper (see Case 23.3 in Belleflamme and Peitz, 2010, p. 661).

Oesterreicher-Singer and Sundararajan collected a large data set starting in 2005 of more than 250 000 books from more than 1400 categories sold on Amazon.com. They restrict their analysis to categories with more than 100 books. This leaves them with more than 200 categories. On all books, they obtain detailed daily information, including copurchase links, i.e., information on titles that other consumers bought together with the product in question (and which Amazon prominently communicates to consumers). These copurchase links exploit possible demand complementarities. Since these links arise from actual purchases and not statements by consumers, they can be seen as providing reliable information about what other consumers like. By reporting these links, Amazon essentially provides a personalized shelf for each consumer depending on what she was looking at last. This allows consumers to perform a directed search based on their starting point. The question then is whether and how these copurchase links affect sales. In particular, the question is: which products make relative gains in such a recommendation network? Are these the products who already have mass appeal (because they are linked to other

products) or rather niche products? To answer this question, one must measure the strength of the links that point to a particular product. For this it is important to count the number of links pointing to a product as well as the popularity of the products from which a link originates. Hence, a web page receives a high ranking if the web pages of many other products point to it or if highly ranked pages point to it. This is measured by a weighted page rank which is based on Google's initial algorithm. The authors also construct the Gini-coefficient for each product category as a measure of demand diversity within a category. They regress this measure of demand diversity on the page rank (averaged within a category), together with a number of other variables. In their 30-day sample, they find that categories with a higher page rank are associated with a significantly lower Gini coefficient. This means that in a product category in which on average recommendations play an important role, niche products within this category do relatively better in terms of sales, whereas popular products perform relatively worse than in a product category where this is not the case. This is evidence in support of the theory of the long tail.

I would like to know your candid opinion, as consumers of information goods (books, music, movies, ...), about the long tail hypothesis and the influence of recommendation systems. What is your personal experience? Are you sensitive to recommendations? Of which sort? From whom? Etc etc. Some introspection of this sort may give us interesting ideas for future research.

[\(Past comments\)](#)



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34 Responses to *Do recommendation systems make the 'tail' longer or shorter?*



[José M. Gaspar](#) 5 April 2014 at 01:40 #

The more IT related products are sold by retailers, the harder it is for the final consumer to identify and locate the specific product he is interested in. As a result, it is not bold to claim that the Long Tail's hypothesis validity hinges crucially on the ability of retailers of providing search tools for consumers, whether through passive or through active search. The main drivers of passive search are the recommendation systems, which use the consumer's revealed preferences from past purchases or page views to identify new interesting products.

My personal opinion is that recommendation systems are more crucial the more they are to be combined with active search tools. In particular, I am referring to the expansion of online communities, where past and future costumers are driven to interact, at least indirectly. By indirect interaction I mean particularly costumers product reviews. The advantages of the latter can be twofold: i) most past consumers arguably do not have incentives to provide misleading information on the quality of purchased products; and ii) a lot of reviews add to the popularity of the product as it means that it has been purchased many times. Essential for their success is the prerequisite that past consumers are not coerced in anyway towards providing a "good" review.

By direct interaction I point out the inclusion of forums or blogs in the retailers' online platforms. This allows potential costumers to get exactly the kind and amount of information they want from past consumers' experiences and opinions.

As a personal note, I should add that the former is particularly important for me. People may be more or less susceptible to online reviews; but as for me, even quantitative straightforward grades have an influence. Specially if I find the reviewers to be very knowledgeable and unbiased, characteristics that should also be made intelligible for final consumers. A good recommendation system should have both a descriptive review and a wrap-up of the conclusions about the product along with a final grade.

As a final note, I should say that active search tools are more important for durable, luxurious and/or expensive products, for which final consumers are going to look for trustworthy and detailed information.

On the other hand, recommendation systems are of special important for products whose consumers' utility exhibit a greater love for variety and which consumers are willing to buy in larger quantities.

Like: 0

REPLY



Paul Belleflamme 18 April 2014 at 09:44 #

One could add to your list of examples the quality of the comments posted on this blog. We have received feedback from some readers telling us that they appreciate our blog for the combination of the posts AND the comments that follow them; putting posts and comments together allow them, they say, to have a rather complete treatment of a given topic.

REPLY



Rita Ribeiro 5 April 2014 at 00:15 #

Regarding the opinion about the long tail hypothesis and the influence of recommendation systems, I will departure from the literature towards my personal point of view.

The developments of the internet allowed consumers to achieve an enhanced matching by easily evaluate, locate and purchase a wide range of products, prompted by recommendation systems. This pattern influences the sales distribution of existing products, as well as the performance of niche products, that traditionally had a small market potential. What is currently under discussion is whether niche products are doing relatively better under the new technologies so that the tail of the sales distribution becomes thicker (and longer), as commonly addressed by the 'long tail' hypothesis. Hence, recommendation systems are a key issue in this phenomenon by providing additional information, in striking parallel to 'word-of-mouth' in the traditional world delivered by family and friends. The higher demand for niche products, stemming from recommendation networks, is due to the fact that consumers become alert for items that otherwise would not.

Chris Anderson's article on the topic of the Long Tail states that "the future of entertainment is in the millions of niche markets at the shallow end of the bitstream". In his article, he gives as an example a book that only achieved a shy success, being quickly forgotten, and given that some years later the same writer launched another book that was a success, thanks to Amazon.com recommendations the former one started to be sold again. Thus, Amazon.com changed a pattern of few years ago and the result was a "rising demand for an obscure book". The previous situation "is an example of an entirely new economic model for the media and entertainment industries, one that is just beginning to show its power". According with the aforementioned author, "retailers will carry only content that can generate sufficient demand to earn its keep" and therefore "niche" products tend to be uncovered. "The other constraint of the physical world is physics itself", once the previous focus is also linked with warehouse space limitations.

According with Oestreicher-Singer and Sundararajan (2012), the "long tail" hypothesis comprises uncovered mixed evidence on the literature. The evidence found by the authors suggests that recommendation networks are positively associated with the "long tail" of demand hypothesis. Thus, this new IT artifacts are central to electronic commerce as the physical artifacts of retail shelves are to traditional commerce, which may help to understand the different patterns of demand between online and offline commerce. Other examples emphasized in literature refers to co-purchase recommendation networks of Amazon.com as initially referred, which presents to consumers links with complementary products made visible under the label "Consumers who bought this item also bought...". Indeed, this website led to an increased performance of niche products which supports the theory of the long tail.

Recommendation systems are usually grounded on subjective product valuations, co-purchases history, rating rankings, popularity, top 10 lists among others, as referred in the introduction of this blog. Other authors, stress that a recommender system based on previous sales may be against the long tail hypothesis, since limited sales would not be highlighted. Nevertheless, as stressed in BP's book, heterogeneity tastes may lead to a 'longer' tail for the aggregate in the presence of such system, meaning that less popular products receive a larger share of sales after the introduction of recommender systems. Therefore, the overall effects are still controversial as previously referred.

As highlighted by Brynjolfsson et al. (2006), "IT-enabled tools can enhance the effect of long-tail markets by allowing consumers actively and passively to discover products that they otherwise would not have considered".

Consumer and business strategies have been widely revolutionized with the online market. According with Brynjolfsson et al. (2006) the Long Tail is now unquestionable, but discussion still remains regarding what factors drive this change and what their effects are. The previous authors included in their article an interesting diagram of the Long Tail anatomy, according with first and second-order drivers on the supply and demand (clients) side of the market. For the formers virtual shelves and aggregation of consumers made are valuable, creating incentives to develop new products as well as market strategies with the possibility of foster new industries and intermediaries. Regarding the latter, consumers have available powerful search and sampling tools, whereas from a passive perspective may afford recommendation systems, which have allowed a flourishing wide range of products including niches. IT systems contributed to lower production costs, as well as enhanced the distribution and promotion side growing in importance.

One concept intrinsically linked with recommendation systems has to do with reputation systems, which may minimize the moral hazard problem. Hence, if consumers are convinced that it is not profitable for firms to deviate from high-quality standards, since such a deviation is communicated to other consumers who can then punish the firm, a trustable online purchase may occur. As stated in PW's book (2012), one of the distinctive features of online reputation is the presence of formal feedback and reputation mechanisms. Indeed, a considerable amount of literature has been focused on eBay two-sided feedback system, followed by Amazon.com analysis, with strong evidence that seller reputation affects customer buyer behaviour. However, constraints may arise when agents may change their name easily and thus start a new reputation. Some doubts may arise regarding the liability of the recommendation system and personal incentives or discouragements, but in the end trust on a continuous basis is the best judgment.

Evolving from the traditional word-of-mouth, recommendation systems are indeed a powerful system that emerged from the recent IT developments, in my opinion. Of course, they should not be followed on a strict way, rather as a guideline for supporting the decision process. On the other hand, they also may be useful to gather different perspectives before going to a physical store, enhancing the discussion with the salesman's experience.

Regarding my personal experience, I commonly use websites with recommendations systems with a twofold purpose: for leisure, in order to book hotels or when planning holidays; to acquire products, including books or technological devices.

Regarding my personal experience, for holidays I usually use booking.com website that encompasses a rating system by dimension, customer's comments as well as photos and a brief description of the hotel. Moreover, and contrary with other opinions in this blog, I have a pleasant experience with Tripadvisor and until now I trust on their comments (when are at least 100); moreover, it also comprises a tool that for a specific hotel and date, other booking sites are open, including hotéis.com, agoda.com, otel.com which allow us to choose the best rates. Another experience related with leisure services, had to do with earlier selection of foreign excursions, where I have used infocruceros.com, to previous evaluate whether it is worth to buy them on the place, by internet in advance, simply using public transportation or by foot, especially in the case linked with a cruise trip.

As far as acquiring products is concern, the websites that I commonly use with recommendation feedback are Amazon.com for books, both eBay and Pixmania for electronic products, such as cameras and other hardware. As a general comment I would say that Amazon.com seem like a targeted advertising tool. Turning now to Ebay, its key advantage has to do with the wide range of products, usually less expensive than in the traditional stores, whereas in 2 up to 3 days it is possible to receive the selected product; since almost every products that I was interested had comments, they were very helpful and I think reliable; moreover, when I bought I also posted a comment to guide other people.

When selecting music to listen from a less known singer, YouTube usually is very useful in choosing a song given its success evaluated by the number of visualizations.

Now to answer the question if I am sensitive to recommendations: recent efforts have been made to improve recommendation systems. In my perspective, this IT artefacts are a helpful tool for evaluating the best opportunities in ecommerce, where is not possible to observe in advance the main characteristics of a product or a service. Nonetheless, I consider recommendation systems more as an adviser rather than a strict evaluation tool, wedging them with family and friend's opinion and their past experiences on using them.

Like:  0

REPLY



Paul Belleflamme 18 April 2014 at 09:38 <#>

Thanks for this extensive review of important literature and for sharing your own opinion.

REPLY



Alexandre Faber 24 March 2014 at 18:24 <#>

I think the 30+ comments posted so far pretty much cover all possible views on recommendation systems and their impact on niche products. So instead of sharing my personal take on this topic I would rather like to discuss two other dimensions that have, for their part, facilitated the emergence of niche products. These are the cultural and technological dimensions, the former primarily affecting the demand-side, the latter the supply-side.

From a cultural or sociological perspective, two trends spring to my mind that should create demand for niche products:

(1) In a world where customs are converging – here I am specifically referring to the Americanization or westernization of culture or of globalization in the cultural sense of the term – a number of people seek to express their discontent with what they view as dilapidation of culture itself by turning their back to mainstream products and instead reorienting themselves toward niche products. For instance think of the several small cinemas specialized in local (or non-hollywood) movies that have emerged.

(2) As consumerism (or economic materialism) – in the sense that one's happiness is a function of one's belongings (relative to the others) and one's belongings define one's identity – is increasingly widespread, people start seeking uniqueness in their identity through the consumption of niche products. This is a thought that is quite similar to the Snob Effect where the willingness to pay is inversely related to the number of copies of the product available on the market, and perhaps explains the emergence of mass customization strategies like Nike's "NIKEiD"-portal which allows you to personalize your Nike trainers and accessories.

Technological progress:

Of course these cultural forces affecting consumer preferences alone are not enough for niche products to emerge on the market; production of niche products must be economically feasible. Niche products naturally face lower aggregate demand than their mainstream counterpart. If economies of scale are important, niche product producers may not be able to work their way down the cost curve (through output expansion) enough in order to be able to set prices that are competitive with their mainstream product alternatives. In fact the cost structure of niche products could actually be totally different from that of a mainstream product, enjoying no economies of scale in the case that customization compromises specialization in the production chain and eliminates external economies because it requires order-specific inputs, etc. Also note that although people might tend to put a premium on customized products this needs not always be the case (or not to such a great extent), especially if the product should be resold in future because the resale value of a customized product is usually lower than that of a mainstream product. (Think for instance of a person that loves pink cars but intends to resell the car in a few years time). Finally, transaction costs with customized products are relatively more important because transactions require far more communication between producers and consumers in order to align the final product to the consumer's personal tastes.

This said, technological advances have allowed businesses in different sectors of the economy to gradually move away from the Ford T-Model marketing model that followed the spirit of "any customer can have a car painted any colour that he wants so long as it is black"

(Henry Ford). The internet and the digitisation of text, sound and image has rendered the production of movies, music and books so cheap as to literally shake up the landscape of the arts. Music studios and labels can easily be bypassed; instead of CDs, artists can sell their songs in mp3 format online without the need of an intermediary, a standard video-camera is sufficient to make marketable movies (google "Nollywood" if you're not convinced), and digitalisation of books allows print-on-demand thereby reducing the need for storage capacities and the problem of a relatively high number of minimum copies that is required by traditional offset printing processes. (With regards to this is I highly recommend looking up on youtube the "espresso book machine" that was presented in a Blackwell bookstore, in London). In this sense, information technologies have undeniably allowed the markets for books, music and movies to accommodate new niche producers.

In other markets too, technological advances have facilitated customisation of products. For instance, there is currently a lot of hype around 3D-printers' possible applicability to different markets (see The Economist newspaper archives which is full of articles discussing that technology and its effects on customisation possibilities).

NIKEiD, see: http://www.nike.com/us/en_us/c/nikeid

Nollywood, see: <http://en.wikipedia.org/wiki/Nollywood>

Xerox's espresso book machine, see: <http://www.youtube.com/watch?v=Q946sfGLxm4>

Like:  0

REPLY



Po-Wei Huang 20 March 2014 at 10:20 #

for my opinion, I think the recommendation system has good influences to the online retailers. But I think customers won't buy the product instantly when they see the non-informational products, they also need to estimate non-informational products then decide to buy it or not. I think it's the same for the informational products, cuz when I see the informational products recommended to me, even I know that the product might be the same type of my favorite, I usually search on the internet to find the comment of this music/movie/book etc. Because I don't really believe all the things which the retailer/seller give to me, because their own goal are the same -to make you buy the product-, and although every seller tell the customers that how their recommendation systems work but I don't think that all the words are the truth, maybe sometimes the online retailer wants to promote something that isn't famous, and they cheats on the system, but customers like me will never know. That's why I always check the comment/reviews of the product recommended to me all the time.

But it doesn't mean that I think recommendation is no use, I think it does a lot to make more people see the product- there are too many product on the internet -, when the customers see the product, they may start to consider about the product, but if they never see that, they'll never think to buy it a lot.

I usually buy clothes on asos- a online clothes retailer from U.K.

<http://www.asos.com/?hrd=1&wt.srch=1&affid=12474&gclid=CPbV0O3ioL0CFWfLtAodLB4ASg>

It's recommendation system really has influence on me, I bought two things which they recommended to me, but it maybe another case because you don't need to judge which clothe to buy by other's opinion- sometimes you may need to but not always. it's a little different from informational products, because if you think a clothes looks good, you don't need to hesitate. It's subjective.

Like:  0

REPLY



Marina 20 March 2014 at 10:02 #

Nowadays we can find many different products and services trying to simplify our live. Recommendation system is certainly one of this products.

This system is used in the most popular websites. When you sign to Facebook it suggests you friends. It suggests you to be friend not with random people, but with people you may know, observing your friends in common. Probably this is one of the most successful recommendation network that we benefit from everyday. But how this websites know what exactly to recommend us?

The answer is very simple. There are two ways through which companies observe customers and make their recommendations. First way is so called Collaborative filtering, which observe your past preferences and compares them with other customers. If there is a match with other customer, then your future preferences might be similar as well.

The other method for observation is so called "Content-based filtering". It takes into account the characteristics of the things you like, and it recommends similar sorts of things, even if no one else has ever had that particular set of favorite products or service before. Using the second approach excludes the opportunity to close the market only for popular products.

While the first method might be used in websites like Amazon and Netflix, the second would definitely be useful in the music industry.

In fact this recommendations might be seen as a change in the advertising strategies. This might be a way to get rid of this sometimes annoying and disturbing advertisements. Presenting a product as a recommendation makes it more personally oriented and this may have positive effect on customers' purchases.

References:

<http://recommender-systems.org/content-based-filtering/>

<http://www.cs.umd.edu/~samir/498/Amazon-Recommendations.pdf>

Like:  0

REPLY



Osimon 20 March 2014 at 09:33 #

It seems that with the long tail theory, the Internet had totally remodeled the demand for books, songs or others goods that are considered as part of a niche segment. This clearly allows people to find less popular items and I had the experience with this. Netflix, iTunes or YouTube will find an opportunity to sell items defined as "obscure" (not really popular on the market). I think that nowadays we cannot really discover any of these items without the recommendations systems. It is now part of our daily research, added to that the fact that the communications networks are more and more present in our life and therefore, obscure goods will beneficiate not only from the recommendation system but also on the community effect because of the sharing options.

In my opinion, recommendation systems are increasing the long tail effect because nowadays we are open to discover more and more things, especially because our computers allows us to store more and more data. But I think that it will mainly work on people that are going on the Internet on an exploratory mode. I mean by there that people will find it intrusive to see recommendation if they are looking for specific goods.

As a conclusion, I think that recommendation system should be used with parsimony, by limiting the intrusive aspect of the recommendation. That will allow the consumer to extend his purchasing vision and on the other hand it will not create reluctant behaviors for consumers that are interested in a specific product. And I say that as a personal experience, I can close a website if I feel that they are manipulating my browsing data, but on the other hand, when I'm looking for example for a movie's rate on IMDB, I am glad to see other movies that might fit with my tastes.

Like:  0

REPLY



C.M 20 March 2014 at 09:13 #

As demonstrated in the article, a relation exists between the theory of the long tail and the recommendation system. It has been showed, based on a research with the Amazon platform that niche products are doing better than popular products, thanks to recommendation system.

Recommendation systems are nowadays used everywhere on the internet. Not only for product selling online models such as Amazon but also on streaming websites, social media (LinkedIn), online newspapers... Recommendation systems are the actual internet "hype" as the term "Big Data" is too. These new ways of targeting individual customers based on their unique profile and behaviour on the net is a powerful tool for companies to offer the appropriate product or service, creating a competitive advantage.

From my personal experience, I've encountered recommendation systems several times and find them amazing but worrying at the same time due privacy issues. For example, IMDB (internet movie data base) proposes me different series of the same kind that I wouldn't have thought of based on me previous tastes. In that particular case, I discovered less well known series with the help of big blockbusters. Another example that I cross every day is newspapers website; once you start reading a few articles, the website suggests related articles that could interest me.

To conclude, I would raise the question of privacy. In our "internet society", privacy will be a rare and valuable thing difficult to preserve. The companies using recommendation systems are using data mining, integrating all the data they possess on customers to propose highly personalized offers and services. Therefore, recommendation system is a useful and practical for both sides, companies and customers, but it would be more ethical to inform and advise the people that they are using our personal details to do so.

Like:  0

REPLY



Lefebvre Jean-Christophe 20 March 2014 at 01:06 #

Recommendations from internet have nowadays an effect on everything I do on internet or in real life: booking a hotel, choosing a destination for holidays, choosing a recipe, movies, books or music. We can see those years more and more website to share experience and make recommendations.

Because I have a passion for electronic music, I will develop this subject from this point of view.

In my experience, I would say "yes, recommendations have effect on me". I think this effect is even bigger with the growth of internet. When I begun to listen electronic music, it was difficult for me to find new sounds because I didn't know a lot of people with the same passion. Today, it exist many websites to find music from all over the world. First, those tooled developed my taste. Thanks to the easy access to music I've been able to listen an impressive amount of music that I couldn't listen or even discover without internet. To begin, Top lists are, in my view, the most used tool for recommendations because it's an easy way to know "the basics". Then, when we know a bit more about the

type of music we like, we can search on specialized websites or on social networks.

Today, the tool I use the most, is Facebook. Every artists or fans of music like me can create a page and share creations or discovers. Therefore, as soon as I discover an artist, I like his page to keep being informed of his new projects. This artist will share music he likes and these recommendations have a good probability to please me as well. I think that this is really good for musicians because small artist can be known for free thanks to facebook. By example, I know a musician from Louvain-la-neuve who is not really famous but thanks to facebook he found an Australian label and he will make a tour in Australia for the second time this summer. So because, recommendations are both ways (customer and producers), I think it's a good thing for the market.

Like:  0

REPLY



d tm 20 March 2014 at 00:34 #

I found the paper by Oesterreicher-Singer and Sundararajan (2010) really interesting. The question now is to understand why this is taking place, that is, why do niche products perform relatively better in terms of sales due to recommendation systems?

I think a possible framework to answer this question may lie on asymmetric information theory, where the buyer has information about the quality of the product she is selling, while the buyer doesn't. In order to avoid the problem of adverse selection exposed by Akerlof (1970) on its "Market for lemons", producers and consumers need to pursue different strategies.

In the case of firms, they typically rely on three main types of strategies:

- Advertising in order to inform consumers about the quality of their products,
- Branding strategies by building a reputation and thus create trust among consumers,
- Implementation of warranties that allow consumers to break a potential consumption risk-aversion.

The above strategies are subject to economies of scale, as the larger a firm's sales, the lower the spending by advertising/branding/warranties she will have to incur, in percentage of sales. As a result, these strategies are likely to be favoring main stream popular products that have naturally higher sales than niche ones.

Recommendation systems have the same aim as these strategies – reducing asymmetric information. However, on the contrary to these strategies, they are likely not to be subject to such economies of scale. The quality of the recommendations is not so linked to the total number of sales, because that will end up creating too heterogeneous opinions that will not match the specificities a particular type of consumer is looking for, so it may purely create more "noise".

Moreover, in the massive presence of the other strategies, consumers may not feel so much the necessity to consider recommendations, as they may be already sufficiently informed about a (popular) product.

Finally, as consumers of niche products give more attention to recommendations, they are also more likely to understand the importance of these. This may end up making them keener about providing their own high quality recommendations, while they may not feel the necessity to do so for a popular product, where the importance of their recommendations is less valuable.

This is a possible explanation why niche products perform relatively better with recommendation systems.

Oestreicher-Singer, G., & Sundararajan, A. (2012). Recommendation Networks and the Long Tail of Electronic Commerce. MIS Quarterly, 36(1).

Akerlof, G. A. (1970). The market for 'lemons': quality uncertainty and the market mechanism. Aug, 84(3), 488-500.

Like:  0

REPLY



Stroobants Benoit 20 March 2014 at 00:26 #

On the one hand, people become more and more lazy to move from their own place to different spots where they could find the product they want. They prefer stay at home and make online shopping with delivery services. But, on the other hand, ordering online is still a great mystery for most people; with a lot of uncertainties: How can I be sure it's the same product I want? Does this product look exactly like what's shown on the screen? Is it the same colors, texture, form...? Shortly, how can I be sure to make no mistake with online shopping? That's the point! Uncertainties and risks are everywhere but with physical stores, you can lightly decrease its risk by showing the product and giving personal advices to each customer, instead of e-commerce.

The input of internet in the daily life change the basics of shopping and forced people to adapt themselves quickly.

However, people are risk averse and would like to be reassured from one way to another. Here is the role of recommendations. Mostly every single product is available easily online. Due to this generalization, digital stores were forced to make their products more tangible on consumers. For instance: some put online more and more pictures with the ability to enlarge and see details, others provide a ranking system with rating and the ability to let an advice on a forum online or try to get a competitive advantage with the possibility to give back the product or even with a good after sales services...Every single act that could get the customers comfortable.

That's exactly what the recommendations do. Some people are less risk averse than others and so, they are more able to try a new product and talk about their experimentation; let's call them "The leaders". Then, once the leaders have tried out something new, the others (let's call

them ("The followers") become more able to buy it thanks to the recommendations of leaders.

In my experience, this method works well. As travel addict, I buy/book often things on internet:books, flights, hostels,...For every trip I have already done, I have always looked at recommendations available on websites whatever the reason; Is this hostel good looking? Is this airline company looks safe? Is this travel book is recommended? If the recommendations are good and the ratings on the top, I'll be pretty sure to make a good choice by booking it. On contrary, if these are bad, I'll wonder if there is a better offer. However, sometimes, I like taking more risks and going against leaders advices but that's up to me...

Like:  0

REPLY



Cristian Gresuk 19 March 2014 at 23:32 #

Being the first time i've ever heard of the Long Tail theory, i must certainly agree to the significance of it's effect.

In my personal experience, i deal with music playlists on Youtube, or Soundcloud, and i have to admit that thanks to these kind of webpages, i've managed to expand my music tastes throughout my life.

I am indeed, a person with very rare and niche-like taste for music, listening to bands and songs that might never even get to the itunes store, and i certainly believe that a lot of this has to do with the recommendations made by any of the webpages mentioned beofre. However,in the beginning, and just like probably anybody else, whenever i wanted to listen to new bands or songs related to my particular tastes, Top 10's, or any type of ranking from any magazine would have sufficed, thus inserting me into a world of songs with well over 100,000 views on youtube, or over 50,000 plays on soundcloud. But yet, each of these songs would have related results, which pointed not only at other mainstream tunes, but also at a smaller group of niche-like songs. This was, alas, my introduction to the music i listen to nowadays, and it wouldn't have been possible without the digitalization of music (same thing with books, or any other products) and the introduction of rankings and recommendations.

So, if it were to be related to my experience, the Long Tail theory cannot be such without the existance of more popular songs/books/etc, and rankings that portray this popularity. I believe that, although every person has its own tastes in music, probably if someone likes band A and bands B and C , within, say, the same genre, another guy who likes B will probably like either A or C, despite it being a popular or a niche band. Thus, this coincidence in taste will be the same case for a great number of users, and this number will increase as long as one of these bands actually becomes numer 1 on a ranking, or the number of views increase exponentially. Ultimately , it will place bands B and C as a recommendation by default for band A, and, since B and C might actually be niche bands(whilst A is the mainstream), the long tail theory will then make sense, as other recommendations attached to niche bands B and C will come into play, and sales for all these songs increase giving a better sales revenue margin.

Certainly, internet gives us the possibility of expanding our tastes as much as we want, and if the recommendation system is well balanced between big sellers and small sellers, it eventually brings knowledge to the user of many products they didn't even know existed, or at least didn't know they actually liked it , resulting on a boost for all sales.

Finally, i also believe that this past few years have been marked by what is called the "Hipster trend", being hipsters all the people who are against mainstream tendencies and rather want to have special and unique tastes,but it has also been a time on which whichever best-seller book, or song, or any kind of product, becomes viral much faster and reaches even more people in a shorter period of time, so this two-fold tendencies arising since circa 2000 and grabbing more and more momentum by the minute, obliged Amazon, Youtube, IMBd and many other sites to provide solutions for both types of tendencies. The best approach is thus tailoring the recommendations with just enough of both types of trends, and letting the Long Tail Theory do the rest.

Like:  0

REPLY



D. Bastien 19 March 2014 at 22:42 #

My opinion on the matter is that the importance of the theory of the long tail will vary depending on the type of product and customer interest for the product. Therefore, the state of mind of the customer will be important in his behavior. I also think that in order to sell products that were less forward with recommendations , we also have the best-sellers in its catalog to draw the eye that can be reoriented under certain conditions.

Personally, I hardly makes purchasing on the internet. When I make one, it is a more thoughtful purchase. And little or nothing can make me change my mind.

I will consider recommendations, as the price of the product. For example, if a movie is included in my subscription , I would tend to be curious because it represents no additional cost to me (or , for example, choosing a song on Spotify) . However, if the product requires an additional budget to my initial purchase (Amazon) , I do not pay attention because I do not make any impulse purchases on the web.

Moreover, having a recommendation system can sometimes give the impression of being tracked when the recommendation is out of context.

Like:  0

REPLY



Hexin Shi 19 March 2014 at 22:32 #

Nowadays, the internet develops very fast, and if you search a main word, it will appear excessive information from internet, so many of those information may be not that useful to you, thus, it will decrease the efficiency of information using. So recommendation system really plays an important role in searching information.

About long tail theory, my understanding is that people in the past only pay more attention to very important things or popular goods. That means people always attention to head rather than tail, you don't need have much energy or search information to know popular things because it is popular, but if you want know tail things(not much popular), you should pay more energy or cost to it, so it always ignore by people. But as long as the storage and distribution channel is large enough, the search cost is very low enough, the market share of those not much popular goods or low demand goods will even more than the share of those few popular goods. So recommendation system can help people to know that niche goods. For example, Amazon, the 25% sales come from niche books (the rank of these books below 100,000). So the recommendation system makes the tail longer.

Because I am to be a consumer, so I want talk about the influence of recommendation system to consumer. Firstly, it can help users quickly find interesting and high-quality information. Secondly, users will pay a lot of time to use website to know their interesting goods through recommendation system. Thirdly, it will reduce adverse effect that users will search repeated or disgust information. Lastly, it will offer personalized information and let the information more accurate.

My experience is that last year, I took an IELTS examination, so I searched popular material books of IELTS, and then I bought those books in Amazon website. But next day, I found in my account Amazon recommended a lot of books about IELTS, so I checked that books and read comments of others, at last I bought a lot of books that I didn't hear before(niche books). To be honest, I am sensitive to recommendations. Because I am lazy, this recommendation system will save a lot of time and very convenient to find my taste goods, so I am kinda depend on this system.

Like: 0

REPLY



Kerem Altin 19 March 2014 at 22:11 #

I would like to give two examples based on my personal experiences.

First,i am a big listener of music and i use Spotify at least 1 hour a day.I spend the half of this time using the Discover page where i can find recommendations of artists based on my listening habits, mostly which are in the same genre.Between them,i usually choose the one i haven't listened before rather than the popular, as i like to try new things.Lately,i discovered a pirate metal band,which i didn't even know it exists and can be considered as a niche product in the music market.So,my point is,without this recommendation feature,i probably couldn't discover this genre and the band couldn't increase their listener number as they earn money per play.

Second,recently i've searched for iPhone 5s in Amazon.com to have an idea about the prices.When i entered the website today to see the recommendations,i saw an air cushioned extreme protection iPhone cover,which can be seen as a niche product in the iPhone cover market.By doing so,Amazon increases the traffic of the product's page by publishing it on the homepage in the aim of increasing the sales. In conclusion,i agree that recommendations increase the sales of niche products and websites like Amazon and Netflix are using this strategy efficiently by decreasing stock and distribution costs with the help of internet.

Like: 0

REPLY



Jérémy 19 March 2014 at 21:54 #

Like many others, I think that the long tail hypothesis is very interesting. By providing a wide range of information goods for all tastes with a recommendation system, websites like eBay, Amazon and so on is in my opinion very helpful for finding particular information goods. Nevertheless, I do not purchase a lot of information goods on the Internet. But I use a lot of recommendation systems of some website like YouTube for example. I think that Internet help us to find more specialize information about things we like.

For example, when I like a particular music or album, I try to find the same kind of style. Generally, recommendations help me to find out similar music. I don't purchase music on the Internet and so the main website which helps me and recommends me in music is YouTube. I find a lot of particular music (which are non mainstream) via the recommendation system and via comments. It is very useful for me when I don't want to spent hours on Google to find other styles of music (which are non mainstream). So, I can say that it decreases my searching cost. Moreover, quality of proposition often suits my expectation.

Concerning the source of recommendation, I always try to use a big website as a reference concerning research of information goods because they are a lot of people giving their opinions. By searching a particular music, I can quickly find other particular music due to a large catalogue and an efficient recommendation system.

Like: 0

REPLY

**CB** 19 March 2014 at 21:38 <#>

As a consumer of information goods, I think being sensitive to recommendations. I often watch them; and it can happen to follow those recommendations and buy products recommended. I take those advices into consideration but I certainly make some other researches by myself. I do think that recommendations about niche products are more useful for consumers (and so more used) than recommendations about products that have mass appeal. Indeed, I'll personally look at recommendations about items that are less popular and close to my preferences than to products much more popular (that I've probably already heard about).

Nevertheless, I'll never buy a recommended product with only considering website recommendations. Because I think it's too risky as we never know what are behind companies' advice. But I have to admit that once you bought an item recommended and that you're satisfied, you'll trust more and more recommendations and then make less researches by yourself. What's more, I don't feel comfortable knowing that websites are using all my researches and information.

But considering websites like Splash.FM, as there is no financial risk when following advices from other users, it's less risky; in that case I'll follow those recommendations. As consumer, it only brings positive impact for consumer. What's more, consumers are motivated to share (by themselves) their information. Indeed, they have the motivation to increase their "high score". Also, those recommendations are more trustful because they directly came from consumers.

Like: 0

[REPLY](#)**Rubens Moura** 19 March 2014 at 20:09 <#>

My decision to follow or not the recommendations of other users when consuming information goods depends on the sort of product that I am interested in acquiring. I will here illustrate this ambiguity through two personal real world situations.

Recommendation systems become crucial when I have to make the decision of what hostel to book before starting a trip for a destination which is new for me. In order to minimize the chances of making a bad choice, I always consult the websites "Hostel Worlds" and "Hostel Bookers" before booking a spot to sleep. Through these platforms, previous travelers can share with future ones their views about the quality of their stay in a particular hostel. More precisely, each previous guest is asked to evaluate the place according several criteria (namely "value for the money", "security", "location", "staff", "atmosphere", "cleanness" and "atmosphere"). The assessment made by all guests is converted to an aggregate number in scale which varies from 0 to 100%, being the higher the value, the higher the level of recommendation of the hostel. Besides the numerical evaluation, people can also share their experiences through a written form, on which they are encourage to highlight the strength and the weaknesses of the place. On top of that, all the feedbacks left are kept up with some information about the profile of the person who left it (e.g. age, nationality, if traveling alone or with family and so on).

Personally – and certainly for most of other travelers that I have ever met – high rating (especially if powered by a substantial number of review), good written recommendations (after all, who likes to have a surprising extra charges and/or have any problems with the personal staff?) and public with a similar age profile are fundamental elements that I take into account when making my decision to book a hostel. In other words, the existence of a recommendation system makes me prone to choose the most popular services providers.

Presented an example on which I contribute to cast doubt on the long tail hypothesis, I can also refer to a situation on which I base my choice toward an increase of credibility to such theory. When choosing the next movie/series to watch in Netflix, I usually opt for those which are not the most recommended. I prefer to watch things that not many people do: it is a sort of taste for a novelty.

In sum, from my personal perspective, the question of feeding or not the long tail hypothesis is partially related with the "risk of regretting" about make a mistaken decision. More precisely and to be consistent with the two examples I mentioned previously: by choosing a bad hostel – say, one that is known by having bad security facilities – may generate lasting bad consequences – such as having a valuable belonging stolen-, whereas the choice of a bad movie will no more than consume me a few unpleasant hours.

Like: 0

[REPLY](#)**de Schrynmakers Raphaël** 19 March 2014 at 17:56 <#>

Consumer behavior theory tells us that people tend to rely more on recommendations from peers rather than believe celebrities or experts endorsing a particular brand.

I myself, tend to look for information from other users before I acquire a particular product or use a service. To give an example, I will go to IMDB before I start downloading a movie. I will go and look for reviews, ask friends, before I buy a technological product.

With the rise of internet, it is now possible to get feedback from a larger variety of sources and therefore, the risk to buy unknown products had decreased by far. Thus, in my opinion, recommendation sites allow to market a whole new range of products, which, before that, didn't get a concentrated demand and were therefore not marketable.

The good thing about recommendations, as I said, is that the risk of purchase of an unknown product is decreased but the other advantage is that you get in touch with unknown products. You light share music with your friends but the fact that you share among a small sample and that you might have the same tastes in music will refrain the fact that you will get to know new artists and especially the less popular ones. With the broadness of recommendations now, you might get the opinion of a totally different person, or someone geographically removed, with a radically different culture and all those factors make that you can get in touch with totally unknown products.

Now the clever part about recommendations on sites like amazon is that they recommend products that people also bought with the item you are buying at that moment. So instead of buying only one item, they try to convince you to buy two or more and this way they manage to increase the average purchase basket of their customers.

Like:  0

REPLY



Raquel Soares 19 March 2014 at 17:43 <#>

We are in an age where the internet has opened horizons to sell and promote products, without being confined to local markets. Through the recommendation systems, people can take a view about the products they already know and want to acquire and those who don't know but may well be of interest. According to the theory of the long tail internet makes distribution easier, since it uses advanced recommendation systems that allow the consumer to be aware of products that they don't know, passing the demand of the most popular products, that variety is smaller, to the demand of any different niche products, where smaller quantities are traded. The recommendation systems appear in order to answer the difficulties that people find in choose from a wide variety of products that often don't know.

So I agree with what is said in relation to niche products, which can play a better role in sales compared with popular products thanks to recommendation system.

This approach becomes evident when the costs of storage and distribution of inventory are not significant, as in the case of digital products sold into virtual stores (eg: iTunes Store), in which case it becomes viable to sell different niche products. The same is not true in physical stores, where sellers have high storage costs of inventories and thus becomes possible only sell the most popular products as a way of disposing of the product faster. However, it is also possible to sell physical goods on the Internet, having a selection of virtual products and would not necessarily have the item in stock.

There are many companies in the internet market using the theory of "Long Tail" as a business strategy, such as eBay, Amazon or iTunes. In the case of the music industry, the use of this theory becomes very effective, because all kinds of music for all tastes are available, both hits and no hits are available online. However as the recommendation system, I don't agree that it can be viable, I think its related with the personal tastes of each and in this case it would make more sense to have particular recommendations for different tastes. Particularly i don't have in mind the recommendations respecting to music. However I think another type of service can become very advantageous, as the searching for travel and hotel. From experience, i pay attention to the comments that are made about possible places to visit or about people's opinion for a given hotel.

Like:  0

REPLY



Anissa Belkhazri 19 March 2014 at 17:11 <#>

Online stores present the advantage that they can offer larger variety of goods on their shelves, conversely to the brick-and-mortar stores. Actually, recommendation systems spotlights the more popular items it does not mean that is the best product or service in terms of quality. The recommendation quality can be improved by the social tags and the social network.

The recommendation systems (RS) may be useful in certain circumstances, this utility is very pronounced and helpful in niche markets for instance to discover an unfairly unknown artist . Moreover, it facilitates the choice for some people or help to match services. The system generates automatically information and do recommendations based on previous purchases in order to oriented the consumers decisions. Nevertheless, we have to take into account that consumers are not always rational in their choices while the RS is based on the consumers behavior.

From my point of view, most of the time, the RS is a windfall for the site providers because they have the opportunity to sell many times more. Personally, I'm not sensitive to recommendation systems based on other consumer's choices yet I remain attentive to what is offered even if it is not important to me.

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Like:  0

REPLY



NT 19 March 2014 at 16:57 <#>

The long-tail hypothesis is something I have come across before, from a firm's perspective. It does exist, and as an intern in a niche

company last summer we were encouraged to study and believe in this long-tail phenomenon. Indeed, less popular products/services which satisfy a small, yet specific need, are the type of products/services which will feature in the long tail and experience maintained revenue streams. In terms of recommendation systems, I think there is a lot of merit in what Oesterreicher-Singer and Sundararajan say in that perhaps the products being recommended already have a mass appeal.

For example, Netflix constantly recommends me to watch 'Breaking Bad'; all episodes of which I have seen but watched online or on DVDs. This is a hugely popular television series, with mass appeal which they constantly try to plug to me, along with programmes such as Sons of Anarchy or The Good Wife. However, I would like to be recommended a lesser known series which they have in their library. The fact that they have these types of low-budget films anyway is a sign that the long tail hypothesis is valid and more niche productions are being watched too. I think that Spotify has better perfected the act of recommendation, as I was listening to a small-scale band and afterwards it recommended me many lesser known bands and artists of a similar genre. I am not familiar with the algorithm Spotify uses, but it seems to be more effective.

I am more sensitive to recommendations given by peers so that they can give me feedback on whether they enjoyed the film/music. I am more likely to trust the judgement of a peer rather than a firm as the firm may be receiving incentives to recommend certain entertainments. I think it is most important to note that without the Internet, the long tail hypothesis is far more difficult to prove. The Internet allows firms to provide services with near zero marginal costs, thus making it easier for niche/small/new and specialised firms to break into the entertainment market. For fanatics of lesser-known musicians or low-budget films etc, the Internet (with a bit of trudging) can help these fans seek entertainments which may never be recommended on a mainstream 'hits' website (Netflix, Spotify), but are still in the Long Tail.

Like:  0

REPLY



Sommeville Benjamin 19 March 2014 at 16:02 <#>

I think that the long tail hypothesis is very interesting and especially with the huge development of the internet in the last years. Thanks to recommendation systems, the current generation of consumers can discover better matches at a personal level without endure any searching costs. Moreover, in my opinion, it is surprising but logical that the niches products do relatively better than popular products thanks to the recommendations and the aggregate sales.

Furthermore, recommendations are very interesting for a lot of small artists. Indeed, it is a perfect way to be known if you do not a lot of advertising budget.

Concerning my personal experience, I do not use Amazon and I buy next to nothing on Internet. However, I frequently use recommendation systems to discover new music's and movies. I use platforms as Spotify.

In my opinion, the both most advantage of recommendations are the non-searching costs and the ability to find easily and quickly new products in harmony with your tastes.

Like:  0

REPLY



Armand 19 March 2014 at 14:47 <#>

Like previous comments, I also tend to think that this theory of the long tail makes sense when it comes to the performance of niche products on e-commerce websites with recommendations systems. Applied to my very personal experience, I can say that I have developed some niche tastes in terms of music and movies in the past ten years, thanks to many different catalyzers of the Internet age such as web-radios, file-sharing networks and more recently YouTube and other online platforms, which also have their own recommendations systems. I would probably not have had such sophisticated tastes if I was born 20 years earlier. The digital age clearly has created this need for diversity amongst consumers.

Similarly, on Amazon, as on YouTube and probably also Netflix, it is true that algorithms of recommendations, similar results and related searches would often be pertinent when you look for a certain product within a particular category, and one can easily be convinced, thanks to this diversity at the individual level. In addition to linked sales information, user comments (positive or negative) would also be decisive in a consumer's choice.

But in the end, aggregated opinions of a larger, heterogeneous population segment still remain essential for standard consumers who want fast entertainment without the cost of running through the whole tail to figure out which niche to choose from. That's why weekly top 10's and all-time favorites that include best performances of the whole merchant's catalog, the so-called "popular products" at the left of the tail, are still needed. Each consumer is free to position from very standardized to very sophisticated.

Like:  0

REPLY



McFly 19 March 2014 at 14:24 <#>

Recommendation systems are everywhere nowadays. You see them when you shop on online retailers such as Amazon but also when you buy music on iTunes or other online music stores, basically any online catalog whether it deals with medias, goods, travels or even services.

Today, you cannot avoid them and neither should you. The reason for that is simple, they do offer good recommendations. As scary as it can get on a privacy level, these recommendations have greatly improved since they were first introduced.

Come to think of it, I have personally used them quite often, and that is simply because you can't miss them. To give my own insight, I have mostly trusted these recommendations on specialized websites rather than on general online retailers such as Amazon. To give some examples, I will take into considerations recommended movies found on the imdb page of a movie that I enjoyed. Similarly, I will listen to recommended albums based on what I liked on websites such as sputnikmusic.com or albumrock.net. On the other hand, I will pay little attention to recommended products based on what I am buying or looking at on Amazon. This comes from the fact that I tended to believe that these recommendations weakened the long tail when they first appeared. It used to be the case that most recommended items were simply the best sellers in their category and were, therefore, only hurting sales of more niche products. Although, I don't think this is still the case, I have kept my doubts on the matter.

I will be more sensitive to recommendations made by a single specialist than an aggregation of what people buy. I would also be more inclined to trust recommendations systems based on reviews rather than sales, although I believe it is a combination of both that is more commonly used. From the examples that I gave, I seem to like smaller communities of users, that are more specialized in their fields, rather than a huge community of casual users of all sorts. As students, we have been taught to verify the information we gather by doing a series of tests on the authors and sources of our documents to confirm their integrity, reliability and relevance. Hence, I like to get recommendations, reviews and intel from a few trusted sources rather than hundreds or thousands of anonymous consumers.

This is a personal choice and it has its own drawbacks. A few trusted sources can quickly become greedy and use their influence to gain profits by recommending products by companies that funds them. But it has already been shown that firms also buy comments and reviews on online retailers to boost their ratings and consequently their sales. There is no perfect solution, but increasing my search costs is definitely worth the trouble to me.

As social media recommendations start getting more common, consumers will be able to see what their friends like and buy which I believe will make those recommendations more trustworthy as you will personally know the persons who gave them. Such a recommendation system will probably tend to reduce the long tail in my opinion.

Like:  0

REPLY



Arnaud De Visscher 19 March 2014 at 13:06 #

For this article, I would like to talk about my Amazon experience. Before I read this article, I didn't know the Long Tail Theory. I am glad to understand now why online shops offer a so great batch of products.

Amazon is the only site where I buy physical goods. I would say that I make some orders on this site about every five months and in most of the cases, these are small orders. It is not that I am bad consumer but rather that I am very careful with the products I pick (as a student my pockets are often emptier than I would like). I am mostly interested in the US comic books. In our European shops we are victim of a poor offer regarding these comics. So we have a lack of knowledge regarding the kind of comics that exist. We are only aware of the hits of the well-known super heroes like Batman, Superman, Spiderman, and the X-Men. It is then rather difficult to find new comics that are fitting us and some research about it on the Internet is not as rewarding as we can imagine.

This is where Amazon plays the white knight in my problem. Why? Because I have to admit that their "recommended for you" section is really helpful. I am huge fan of the *Batman* novels but once I have read the top rated one, I do not know which other novel could fit my collection. So I rely on what Amazon offers me. Of course, in the beginning I relied only on the one that were related with top sellers comics because I don't want to spoil my collection with bad comic books (and more generally, I don't want to waste money). But once you have acquired these comics too, the game becomes a little bit harder because you have to go deeper into the unknown. The reviews on these comics become scarcer and you don't want to proceed blindly. But you have to.

If you are lucky, you grab a hidden piece of art. This was my case last October. I decided to try a two volume comic called respectively *Sleeper: Season One* and *Sleeper: Season two*. How did I end up with these comic books on my shelf? Well I was looking at the recommended section of the comic *Batman: The Man Who Laugh*, written by Ed Brubaker, broadly acclaimed in the US but almost unknown on the other side of the Atlantic. After a few clics, I was in front of the *Sleeper* comic, who has not much in common with Batman except his "noire" genre and that it was written by Ed Brubaker.

I think that we must not be too naïve: the recommended section has some limitations too. For instance, when you go deep enough in the research, you will find some really interesting comic books for yourself but you cannot proceed to check out. The reason is that these comics are too uncommon.

Then a lot of problems suddenly appear. It may be that the format is not fitting you (Paperback, Hardcover or Kindle), like *Batman: Earth One* only available in hardcover; or that you cannot buy it new anymore; or sometimes they are just not affordable. This is a problem I recently met. I would like to read the DC Comic book called *The Question: Zen and Violence* but the first offer starts at 65\$, which is a price almost six times more expensive than a classic hit.

Another limitation of the "recommended section" I think is the fact that it is built upon the past orders of clients. But if we take into account that most of these orders were made by users after reading the "recommended section", we encounter a problem. Indeed we are blocked in the same layer which means that the same products are always recommended. So how can there be new feeds? Do we have to wait until a

client makes the first step into the unknown? Or do we have to do it ourselves? But then do we not lose the interest of the "recommended section"? In the music industry it is not a real problem because you can either try the product or buy it at \$0.99. But for comic books, you cannot really proceed like this. Of course you can try it by piracy but reading is always more comfortable when a book is physically in your hands. And I said before, a comic book is not sold at \$0.99...

Like:  0

REPLY



CM 19 March 2014 at 12:34 <#>

The huge development of the internet in the last years is very profitable for a lot of small artists. They can now easily share their work all over the world for free or for a low cost.

That's of course also interesting for the people from the other side, who can discover way more artists than what they could before if they went for example in a recordstore.

Of course the small artists can't easily attract people by themselves, therefore they have to use bigger platforms that can help them. In this kind of platforms a recommendation system can be very useful. If the consumer had to search for a new artist when he wants to listen to something else, it would be difficult for him to find something he likes. But, when the proposition is linked to an artist he already likes, it is way easier for him and moreover, he is more likely to like the new artist.

Of course, it does not only work for music, but for all the entertainment industry. For example for books, it could be combined with the print on demand system that some websites already offer.

But I don't think the recommendation system works as well for the other kind of products.

For me recommendations work better when they come from people I know and who I know have kind of similar tastes as me. Generally I'm more likely to listen to their advice than to listen to the advice of a website or a program.

I sometimes use the recommendation system for the music I listen to, that's very easy with a program like Spotify, but in that case, even if small artists can also publish their music, in general their name don't come out very often compared to the bigger ones.

Other sites are made for small artists but they are less popular than the most famous ones.

So I think that in the music industry there is still a progress to make on that, compared to the book industry for example.

I agree with the long tail theory, because all the small artists together represent a huge market, but, to make this theory work, I think a change in mentalities will be necessary, because a lot of people still prefer the well-known artists and don't want to make the effort to look for the small ones.

Therefore, the recommendation system helps, but the people will have to make an effort too.

Like:  0

REPLY



Fabian 19 March 2014 at 10:55 <#>

The long tail hypothesis states that there are more products, thus more differentiated products in the long tail than in the head. So this long tail cannot be neglected because they offer better matches for consumers. Being better suited it goes without saying that good recommendations should often be focused on products located in this long tail.

My only experience with a recommended product I purchased on Amazon.com was last year. I bought a hard case for my phone on the bottom of the web page Amazon recommended an additional screen protector. It is not an information good, but it shows that I can be influenced by the recommendation system. But the reason I did go through with the transaction was that it was a very popular product, thus trustful. Thousands of people already bought one, and the product had a rating of almost 5 stars. So this recommendation worked for me because it was located in the head of the curve. I would probably never have purchased it had it been in the tail.

But this is one example from Amazon. I do use, just like a fellow student, IMDB.com a lot to find movies to watch at home. Because I often go to the theatre to see the big budget movies, I need another source to find less popular movies that aren't projected in Belgium. That's where IMDB comes in. To use a recent example, I went to see 'Captain Philips' and I really loved it. When I got home I went to rate the movie on IMDB and there I saw 'A Hijacking' aka 'Kapringen' (original title) in the "People who liked this also liked ..." section. It had only 7 000 votes compared to the 175 000 of 'Captain Philips', so it was a rather unknown Danish movie. Intrigued after having read the plot, I decided to watch it.

Unfortunately even on IMDB, a website that has no interest in promoting big budget movies, it is often the very popular ones that gets recommended. Out of the 6 movies they recommend each time, at least 4 of them have more than 100 000 votes. So IMDB isn't the perfect example of the long tail hypothesis, but it is useful, partially through their recommendation system, to people looking for niche products.

Like:  0

REPLY



B 19 March 2014 at 03:31 #

The current generation can enjoy a larger access to niches products thanks to the opportunities that internet gives us. It allows us to browse along all the products from the long tail without endure any costs.

From my point of view and according to the long tail hypothesis, it is obvious that the niches products do relatively better than popular products thanks to the recommendations. First, they have an higher potential coming from the fact that they still didn't have a great advertising. Then, products from the left of the tail are already popular and can't become much more famous.

I consider myself having very specific taste and the goods recommendations are a pleasure to discover new products or artists. As a music lover, I like to listen to unknown artists but I couldn't do this without internet because of the difficulty to find points of sale and that feeling of apprehension to pay for something that we could dislike. Recommendations help us to find the goods that we may like and allow us to try some and even purchase it.

But I think there is also an overload of information. The system is very efficient if we know precisely what we are looking for and, even better, if we know having similar taste than a particular person or than the popular masses. In this case, we can follow a particular path and avoid a great waste of time. But otherwise, most recommended products are those coming from the left of the tail and we have to go through all those one before finding a more particular one. Having said this, I think that following a particular recommender is more interesting than receiving all the recommendations about popular products.

Like: 0

REPLY



De Tollenaere Jonathan 18 March 2014 at 19:41 #

The theory of the Long Tail, developed by Chris Anderson, is a really interesting theory especially in the digital age we know.

I directly thought to Amazon when I started to read this article.

In my opinion, I think that an e-commerce based on this theory is a really good idea because the demand for niche products is higher on the Internet than in a physical store.

Indeed, on the Internet, people can order from all countries (more potential customers) and you have more chance to find someone who is interested in your products.

The demand for all these products is probably equal or more (combined demand) than the demand for popular products. (This is the idea of Chris Anderson)

I personally think that an e-commerce can propose niche products, but also the popular products to complete his offer and to have the highest possible profit.

"Are you sensitive to recommendations?"

In my personal experience, I am not really sensitive to recommendations.

When I am looking for a product (all kind of products), I know what I search. That's why I never ordered one of the recommendations I saw on the web sites.

Sometimes, the recommendations can only help me to find similar products (maybe cheaper) on the web site.

I think that recommendation systems are better for music products than for other kind of products.

When someone listen to music, it is interesting for him/her to have recommendations about other songs that he/she could like. (similar style)

References :

Anderson, C. (2006). The Long Tail: Why the Future of Business Is Selling Less of More, New York, Hyperion.

Like: 0

REPLY



Farah Ad'Oul 18 March 2014 at 18:53 #

As assumed by the long tail hypothesis, the products at the tail of the distribution are the ones we are interested in as consumers when looking for recommendation about a book, film, music, etc. Indeed, the products situated left of the tail are already popular and we probably already know about them. Recommendation thus isn't needed for these products. While this is obvious, most of the recommendation systems used on websites are in the line of a "Top-10" recommendation. They are thus general recommendations of popular products and don't target the people with specific needs in a product. Although these kinds of recommendations can come in handy, I personally believe that recommendations should aim products that aren't very well known, including niche products. By doing so, the recommendation system can address specific needs of a consumer such as genre. The more specific the recommendation is, the more it is useful. Systems that analyse what kind of products you are interested in before giving any recommendations are therefore the most effective.

Being a user of the IMDB website (a database for movies and TV-series), I often look at the recommendations before watching a film. The types of recommendation on this website are various. On one hand, you can have a look at their top-100, top-50 etc. lists of movies. But, as mentioned before, I find this to be the least effective recommendations. I would even go as far as saying that establishing such lists is useless. On the other hand, the website creates a short list of films recommended for you based on the films you have rated on the website before. This list usually contains popular films as well as unpopular ones (small productions, foreign films, short-films). You then discover a whole bunch of films you had never heard about before. I usually follow the recommendations based on that list so, to me, it clearly is effective.

Like almost everyone else, I am also a user of Amazon. I reckon that the recommendation system established by copurchase hasn't worked on me yet. As I only shop on Amazon to buy articles that I can't find in physical shops, my purchase goes to a specific product and I am not tempted to buy anything else. Therefore, I don't pay any attention to recommendation systems on websites like Amazon. The reason for that is purely based on my objective on the website and not based on the effectiveness of the recommendation system used by Amazon.

Like:  0

REPLY



Matthieu 18 March 2014 at 15:11 <#>

I totally agree with Caroline, so I will not explain the same stuff with the niche product. So, I will talk about my personal experience with information goods. I almost never read books; I don't remember the last time I bought a book for myself. But, when I buy books, it is a gift so I always use recommendation website. Most often, I don't buy niche product. I prefer popular products, because there is more chance that the person will enjoy it (I guess).

For the movies, it is different. I watch a lot of movies. But I don't like the blockbuster. I prefer less popular product. When I'm looking for a movie to watch, I look on several website to find interesting movies that I can watch. Without internet, it is more difficult to find such kind of movies, because if we don't have the recommendations, we may have very bad movies. So next time, we will choose some more popular movie. For movies, I prefer recommendations from forum. On the specialized website like allocine for example, they privilege blockbuster and popular movies.

I am a little perplexed with the affirmation of Netflix. If the movies from recommendations are all of the blockbusters and popular movies, it is logical that 75% of movies watched come from recommendation. But maybe, even if they weren't from recommendation, a great percentage of these movies would have been viewed. We have to go deeper to see what kind of movies are from recommendation.

For videogames, it is different. I think that recommendations will guide consumers towards popular products. For several reasons: first because of the graphics, they are very important in game, and of course they are better for popular products. The second reason is the network effect. Most often, we can play online. So we will prefer popular products with good recommendations, due to the fact that we know that a lot of people will be on the network to play with us.

Like:  0

REPLY



Caroline Sokolowski 18 March 2014 at 13:20 <#>

I would like to say that I completely agree with the statement "niche products are doing relatively better in the digital age so that the tail of the sales distribution becomes thicker (and longer)".

A traditional shop can only sell a limited number of goods due to the cost of stock and of distribution. In this idea, when the cost of opportunity (stock and distribution) is high, the only goods available are the ones that generate the maximum amount of sales. All the niche products are put aside and the shop can only reach a small part of the market. The Pareto principle stipulates that 20% of goods generate 80% of the turnover.

With the venue of internet, the online shopping model has turned the entire principle upside down. Due to the goods' dematerialization and the subcontracting contracts, thousands of goods are accessible to consumers. As an example, we can think about Amazon or even Pixmania.

The long tail concept is thus the following: some hits are in the top of the sales and thousands of other products generate multiple sales. The toppers attract lots of consumers and give lots of benefit to the firm. Nevertheless, if the number of low demand's goods is high, the benefit engendered by those sales can equalize or overtake the ones of the toppers. However, in order to benefit from this long tail phenomenon, a link between the renowned goods and the unknown ones must be established. And this is the role of the recommendation.

As a personal example, I recently bought some books on Amazon for my thesis. The recommendations have helped me to discover new books that I didn't know before. After deeper researches on rankings and comments (not only on Amazon but also on other website), I bought 4 books instead of 2. I think it is important to take a look at what others think about the product. The critiques are essential for me. A product cannot please everyone and by looking at them, you realize if it fits your expectations or not. It is even more convincing if they have been made by some specialists.

In summary, I bought 2 best sellers but also 2 niche products thanks to the system of recommendation. It thus worked for me.

Like:  0

REPLY

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