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KEL473

RUSSELL WALKER AND MARK JEFFERY

Netflix Leading with Data:
The Emergence of Data-Driven Video

Reed Hastings, founder and CEO of Netflix, Inc., sat at his desk reviewing the journey Netflix had taken from a small startup to a company that revolutionized the way consumers viewed movies and humbled entrenched players in the video rental industry. Since its founding during the height of the dot-com boom in the late 1990s, Netflix and its innovative Web-based, home-delivered video rental business model had all but supplanted traditional bricks-and-mortar chains such as Blockbuster and Hollywood Video by the late 2000s. A comparison of the stock prices of Netflix and Blockbuster as of mid-2009 confirmed this—Netflix was trading at nearly $39, compared with Blockbuster's price of less than $1.

Hastings, although proud of his company's accomplishments, could not rest on his laurels. Firms such as Amazon, Apple, and Hulu were beginning to allow consumers to stream movies and television shows directly to their computers or home entertainment devices such as the Apple TV, threatening Netflix's business. Hastings had just met with Netflix's director of marketing to brainstorm about how Netflix should respond to these threats. They agreed that digital distribution of movies was becoming increasingly important, yet they knew moving Netflix toward video on demand would require significant investments in research and development and operations, in addition to a fundamental restructuring of the organization. Hastings wondered how best to meet these challenges while maintaining Netflix's profitable core business.

The Video Rental Industry

The video rental industry in the United States had its beginning in the 1970s. The basis for this new industry was the development of VCR technology. Studios initially resisted the industry, fearing loss of control over the distribution network (at that time limited to movie theaters). In addition, they did not believe consumers would be willing to rent videos. By the 1990s, however, the studios' acceptance of home rental videos was total, as they saw an opportunity to increase revenues from movies that had performed poorly in theaters. Several independent studios that had difficulty promoting their films in theaters became particular supporters of the video rental business.

By 2000, DVD technology was allowing studios to enhance the product delivered by adding extra scenes, extended versions, and commentary tracks, thus increasing profitability. By 2010, Blu-ray technology, which enabled the viewing of high-definition video, was challenging DVDs

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as the industry standard for movie rentals, although low penetration of Blu-ray set-top boxes limited growth and helped maintain the DVD's position.

At the same time, other channels for distributing movies were also gaining supporters. Digital distribution of movies (via Internet streaming) was gaining market share, beginning with younger, more tech-savvy customers. In the medium term, this form of movie distribution was a great threat to the physical rental of movies. In addition to not requiring customers to go to a video rental store or mailbox, digital distribution allowed customers to watch a film immediately after purchase and offered additional features, such as the possibility of downloading movie trailers, which allowed better promotion of movies and greater monetization of some titles (see **Exhibit 1** for a financial portrait of the U.S. media entertainment market).

The Video Rental Industry Value Chain

The video rental industry included several players in its value chain: content creators, distributors, television and cable operators, movie theaters, video rental stores, and retail outlets. After a movie was released by a studio, it was expected to move to home video and pay-cable distribution channels before moving to basic cable and television networks.

Traditionally, content creators, or movie producers, had significant control over the pricing and offering of movies. However, the rise of the video rental market greatly reduced the power of large movie producers, providing opportunities for smaller movie producers to prosper while forcing movie prices to be adjusted from the in-theater model to accommodate the in-home movie experience.

Industry Players

Although the video rental industry was highly concentrated, the market was also populated by a number of regional companies and smaller niche players. For example, eHit targeted the Japanese, Chinese, and Korean communities. Adult DVDEmpire was the largest adult-only rental company, offering a wide range of adult entertainment. Redbox offered online Blu-ray and DVD rentals, but required customers to pick up the discs at kiosks located primarily at grocery stores, gas stations, Wal-Marts, and fast-food restaurants. Several software solutions, such as Graboid, allowed customers to watch movies online.

The Rise of Blockbuster

Blockbuster Inc. soon emerged as the video rental industry Goliath. Founded in 1985, the chain had quickly become the largest in the world. Growth was primarily through acquisition; the company targeted local video stores with dominant market share, thereby guaranteeing a strong installed customer base in convenient locations. Firmly rooted in a storefront model, Blockbuster also bought out regional chains, including Southern Video Partnership, Movies to Go, Video Library, and Major Video. In 1987 Blockbuster had 133 stores; two years later it had 1,000.

Blockbuster had a traditional video rental business model; it bought the movies' licenses from the studios, stocked the physical products (VHS, DVD, Blu-ray discs) in its central warehouses,

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and then spread them throughout its network of stores and franchisees. In addition to renting videos, Blockbuster sold other products in its stores, such as video games and snacks.

As industry titan, Blockbuster was an important link in the major studio profit chain. Studios gave Blockbuster first crack at renting VHS copies of movies before the general public could purchase the film outright. The result was huge. Sales to Blockbuster represented nearly half of all studio income and were a critical source of their high-margin revenue.

But setbacks came in the late 1990s: Blockbuster, which by now had 3,400 stores, nearly one-third of them overseas, lost key leadership personnel and had difficulty stocking new releases on time. For the first time, the video giant was vulnerable. The release of the DVD format in the late 1990s was salt in the wound: studios began releasing DVDs to retail channels and rental chains at the same time, stripping Blockbuster of its first-to-rent advantage. Accordingly, Wal-Mart replaced Blockbuster in 2003 as the single largest source of income for studios.[1]

As its core business revenues fell under attack from Wal-Mart and video rental competitors, Blockbuster faced another challenge—this time from an upstart online rental service that mailed movies in eye-catching red envelopes: Netflix.

Netflix

Netflix was founded in 1998 by Reed Hastings and Marc Randolph, former colleagues at Pure Software, a startup begun by Hastings that was later purchased by Rational Software for $750 million in 1997.[2] Hastings hatched the idea shortly after he sold Pure Software, when he discovered on a visit to a video store that he owed a $40 late fee for *Apollo 13*, which was six weeks overdue. Hastings recalled later:

> *I had misplaced the cassette. It was all my fault. I didn't want to tell my wife about it. And I said to myself, "I'm going to compromise the integrity of my marriage over a late fee?" Later, on my way to the gym, I realized they had a much better business model. You could pay $30 or $40 a month and work out as little or as much as you wanted.*[3]

Hastings soon hatched a plan to fuse Americans' love of movies with their desire for convenience. Although Netflix was launched as an online version of a traditional pay-per-rent model, charging $4 per rental plus a postage fee and any incurred late fees, it quickly introduced a monthly subscription model and eliminated due dates and corresponding late fees (see **Exhibits 2** and **3** for Netflix's financial statements).

How Netflix Worked

The Netflix business model was easy for customers to understand. Customers signed up for monthly subscriptions, choosing among packages that allowed them to rent varying numbers of

[1] Edward Epstein, "Hollywood's New Zombie," *Slate Magazine*, January 9, 2006, http://www.slate.com/id/2133995.

[2] "Pure Software Inc. Announces Initial Public Offering of Common Stock," *Business Wire*, August 2, 1995, http://findarticles.com/p/articles/mi_m0EIN/is_1995_August_2/ai_17119769.

[3] Chip Conley, *Peak: How Great Companies Get Their Mojo from Maslow* (San Francisco: Jossey-Bass, 2007).

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movies at a time (see **Exhibit 4**). The most popular membership allowed customers to rent up to three DVDs at a time. Customers compiled lists of movies they wanted to watch on the Netflix Web site. When the DVDs became available, they were mailed to the customers, who could keep them as long as they wished without the threat of late fees. With Netflix, customers could watch movies on their own schedules (see **Exhibit 5**). Although Netflix lacked the immediacy of the in-store rental experience, it combated this by creating a highly customized experience for its subscribers by collecting massive amounts of data about their viewing habits and leveraging this data into an innovative recommendation engine. Customers did not have to wander through virtual aisles to find movies that appealed to them: Netflix's algorithms did this for them.

Netflix's business model showed a leaner operation than Blockbuster's, as it sent the movies directly from its central warehouse to customers' houses. In this sense, the cost of supplying individual stores (as in the traditional video rental model) was replaced by the cost of mailing films directly to consumers. However, this business model allowed Netflix to maintain lower stocks (the central warehouse reduced the minimum stock required compared with stocking hundreds of individual stores), and the low cost negotiated with the U.S. Postal Service (due to its long-term contract based on economies of scale) helped Netflix become competitive very quickly.

Consumers responded favorably: on February 25, 2007, Netflix Inc. delivered its one billionth DVD, and just two years later delivered its two billionth (see **Exhibit 6**).[4]

Comparing Value Drivers in the Video Rental Market

Media rental firms such as Netflix and Blockbuster could pull three levers to deliver value to their customers: selection, convenience, and price.

SELECTION

Selection of films available for rent by a firm could be defined in two ways: the available quantity of popular films or the diversity of films available across genres. Blockbuster, constrained by physical limitations imposed by its bricks-and-mortar stores, generally limited its selection to mainstream titles. However, it did offer customers an excellent way to browse for new movies. Netflix was not constrained by physical storage limitations at individual locations, so it could carry a much larger quantity and diversity of titles across genres, despite not being able to match Blockbuster on the ability to easily browse for new movies.

CONVENIENCE

Convenience could also be defined in two ways: spatial or temporal. Blockbuster's bricks-and-mortar presence nationwide made it spatially convenient. However, it initially limited rentals to one to five days, making it temporally inconvenient. Netflix was also temporally inconvenient; it had to mail DVDs to customers, so they had to wait a few days before being able to watch their movie rentals. However, by allowing customers to keep films indefinitely as long as their subscriptions were active, Netflix reduced that temporal inconvenience.

[4] Steve Swaskey, "Netflix Ships 2 Billionth Movie," *The Netflix Blog*, April 1, 2009, http://blog.netflix.com/2009/04/netflix-ships-2-billionth-movie.html.

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PRICE

Blockbuster's a la carte pricing model meant customers had to pay each time they rented a video and pay a fee if they returned it late. Netflix, on the other hand, charged a flat subscription and allowed customers to rent between one and five DVDs at one time, with no limit on how many could be rented in a month and no due date. Netflix's pricing schemes gave customers the illusion of greater flexibility, but in essence, late fees were included in the subscription price.

Keys to Netflix's Success

By 2010 Netflix had become the largest online video rental subscription service in the United States—a position that could be attributed, in part, to its strategic decision to leverage the growing presence of the Internet with the increasing ubiquity of household DVD players. (It took only five years for the DVD to enter 50 percent of U.S. homes; by 2010 DVDs were watched in more than 70 percent.)[5] But Netflix's sustainable advantage could be chalked up primarily to one key strategy: using technology to harness data and thereby better serve customers and vendors alike.

BUILDING CUSTOMER EXPERIENCE AND LOYALTY WITH DATA

> *There are three types of customers at Netflix. One group likes the convenience of free home delivery, the movie buffs want access to the widest selection of, say, French New Wave or Bollywood films, and the bargain hunters want to watch 10 or more movies for 18 bucks a month. We need to keep all the audiences happy because the more someone uses Netflix, the more likely they are to stay with us.*[6]
>
> —Reed Hastings

Most customers saw Netflix as a convenient service that quickly delivered movies they could keep as long as they wanted. But underlying that simple premise was a vast and complex software system that used more than a million lines of code to compute who got what movie next, which movies would be in demand, and, above all, which films should be recommended to specific customers. That was how Netflix kept its disparate audience happy.

The proprietary recommendation software that Netflix developed, called Cinematch, asked customers to go through a rating exercise, priming the system to understand their movie preferences. The more movies a customer rated, the more accurate Netflix's recommendations became (see **Exhibit 7**).

> *Our warehouse employees never interact directly with the customer, so what we focus on instead is having the Web site be the most personalized Web site in the world. If the Starbucks secret is a smile when you get your latte, ours is that the Web site adapts to the individual's taste.*[7]
>
> —Reed Hastings

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[5] Judson Coplan, "Diagnosing the DVD Disappointment: A Lifecycle View," Glucksman Institute for Research in Securities Markets, Stern School of Business, April 3, 2006, http://w4.stern.nyu.edu/glucksman/docs/Coplan.pdf.

[6] Patrick J. Sauer, "How I Did It: Reed Hastings, Netflix," *Inc. Magazine*, December 1, 2005, http://www.inc.com/magazine/20051201/qa-hastings.html.

[7] Jena McGregor, "High-Tech Achiever," *Fast Company Magazine*, December 19, 2007, http://www.fastcompany.com/magazine/99/open_customer-netflix.html?page=0%2C1.

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Each time customers visited the Netflix site, their experience was uniquely customized—and their behavior on the site during each visit helped further customize their next visit. Even Amazon, one of the originators of online personalization, did not consider reviews of past purchases when giving recommendations. When customers used Netflix's recommendation software (and roughly 60 percent of queued movies came from recommendations), a symbiosis was created between Netflix and customers: members were introduced to new movies they might like and ran less risk of renting films they would not enjoy, and Netflix was able to maximize its inventory and avoid recommending out-of-stock films.

BUILDING BETTER ALGORITHMS

In October 2006 Netflix announced the Netflix Prize, a $1 million contest that invited the public to devise a recommendation algorithm that could beat Netflix's own Cinematch. Over the course of the five-year contest, Netflix would judge algorithms by the percentage improvement in prediction accuracy each had over Cinematch's results. Netflix established the target of a 10 percent efficiency improvement for the prize. To support the contest, Netflix released a database of 100 million customer ratings to any teams or individuals who were interested in cracking the code. Interest in the contest exploded, with Netflix receiving more than 160 submissions within two weeks of announcing the Netflix Prize.[8] On September 21, 2009, the BellKor team won the first Netflix Prize with an algorithm that surpassed the competition threshold of 10 percent efficiency improvement. This prize drew international attention, bringing Netflix enormous resources for R&D. (See **Exhibit 8** for the leaderboard as of May 2009.)

This competency in using data mining to understand customers provided Netflix with another key advantage in targeting customers. Netflix tracked customers' purchasing patterns to predict inventory levels needed for certain types of movies and to strengthen its Cinematch recommendation engine. This innovative system allowed Netflix to engage its customers more effectively than Blockbuster, which tracked customers at the franchise level. Netflix leveraged what looked like strictly operational data to improve customer experiences and marketing.

LONG-TAIL SELECTION AND VARIETY

Netflix's ability to recommend lesser-known movies was integral to its consumer appeal. Consider the Netflix Top 100 list of rentals, comprising not only heavily hyped studio blockbusters but also niche films such as *Mystic River* and *Born into Brothels*.

Again, much of this was attributable to technology. Said Hastings: "Our movie buyers are very good. We constantly invest in and improve our technology. Using all of our measurements, we know within a 10 percent range whether a movie will be a hit with a subscriber."[9] Included in this technology was an in-depth search system: customers could browse for movies in more than two hundred subgenres ranging from British humor to fifteen varieties of anime to steamy romance. And Netflix was continually expanding and evolving this capability: a new component called Friends allowed movie buffs to share reviews and recommendations.

[8] Jordan Ellenberg, "This Psychologist Might Outsmart the Math Brains Competing for the Netflix Prize," *Wired Magazine*, February 25, 2008, http://www.wired.com/techbiz/media/magazine/16-03/mf_netflix.

[9] Sauer, "How I Did It: Reed Hastings, Netflix."

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RELATIONSHIP WITH MOVIE HOUSES

The fact that Netflix was able to expose viewers to a broad range of movies was unquestionably a boon to studios. It also enabled Netflix to reduce demand for newer (and thus pricier) releases. Only 30 percent of Netflix rentals were new releases, compared with 70 percent at Blockbuster.[10] Operating in an online space allowed Netflix to work with a broader spectrum of movies. Indeed, Netflix created audiences for films that Hollywood often would not bother with: 85 percent of films—even if showcased at festivals such as Sundance—never were distributed to theaters and thus, never received adequate promotion or advertising. Such maneuvering not only helped Netflix provide customers with more options and more relevance, it also helped the company build and maintain its relationships with movie houses and distributors. Netflix also leveraged its partnerships with the big studios to release movies sooner to the video rental industry, reducing the traditional time lapse between the movie's release date in theaters and the date it became available for rental.

Moreover, data mining provided other valuable insights used in product acquisition. Consider how customer data on movies' appeal (enabled by the data mining) helped Netflix determine how much to pay for hard-to-market movies. For example, when it bought DVD rights to *Favela Rising*, a documentary about musicians in Rio de Janeiro, Netflix knew one million customers had rented 2003's *City of God*, also set in Rio, about 500,000 had rented the documentary *Born into Brothels*, and 250,000 rented both. Thus, Netflix assumed 250,000 rentals for *Favela Rising* and paid a fee accordingly.

EMPLOYEE MANAGEMENT

To become a successful technology-based service company, Netflix leveraged its employee base as a laboratory for examining company processes from the perspective of the consumer. To start, warehouse workers—those closest to the customer—got free Netflix subscriptions and DVD players to better understand what customers went through when *Wall-E* did not arrive in time for their child's birthday party. Corporate employees were incentivized to solve tough engineering problems that improved the user experience, with perks such as unlimited vacation time and a free trip to the Sundance Film Festival each January. Netflix also paid its workers handsomely and allowed them to structure their own compensation packages—all perks that came with the expectation of ultra-high performance. This was especially critical as Netflix became increasingly embroiled in a two-front war: battling Blockbuster and Wal-Mart for the leading market share in physical DVD rentals and competing with the likes of Apple for the digital streaming service market.

Competition in the DVD Rental Market

BLOCKBUSTER

Until Netflix entered the scene with its now-iconic red envelope, Blockbuster's blue-and-yellow logo was the symbol most associated with video rentals. That Netflix—which launched when VHS was king and DVDs were still mistaken for CDs—could challenge Blockbuster was a surprise to many. Ultimately Netflix's strength derived from its success executing its innovative business model and delivering greater value to more targeted sets of customers than Blockbuster.

[10] Timothy J. Mullaney, "Netflix: The Mail-Order Movie House That Clobbered Blockbuster," *BusinessWeek*, May 25, 2006, http://www.businessweek.com/smallbiz/content/may2006/sb20060525_268860.htm.

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First, Netflix identified an unmet consumer preference: flexibility. Consumers (perhaps subconsciously) resented being hamstrung by due dates and late fees. Blockbuster, constrained by inventory at its stores, could not offer such flexibility—because each store had a set inventory, the company could not allow customers to keep movies indefinitely. Netflix had no such constraints; its business model was based on inventory warehouses, thereby enabling customers to retain movies as long as they liked. This difference fostered differentiable marketing: Netflix pitched its service as a convenient alternative to Blockbuster and its late fees. The subscription model also provided a more reliable revenue stream.

Blockbuster, of course, fought back. First, it attempted to counter Netflix by marketing a "no late fees" program in 2005, a move that cost it roughly $400 million. However, the policy applied only to the first thirty days after the due date, after which the firm charged the customer the full purchase price of the DVD. In 2006 Blockbuster released "Total Access," a program that coupled brick-and-mortar-store benefits with an online video rental service similar to Netflix's—DVDs could be rented from the online store, then returned at a local Blockbuster outlet. The program was not widely accepted by consumers, however, because limitations on customers' activity proved too constricting. For instance, consumers were required to maintain separate accounts on the Web site and local franchise, and videos rented from stores could not be returned through the mail.

WAL-MART

In late 2002 Netflix found itself facing a new and formidable competitor: Wal-Mart. When the retail giant started an online DVD subscription service in November 2002, Netflix stock plummeted to $2.50. The market was shocked—as was Hastings: "I was surprised they entered the market, but I knew that they wouldn't be as focused as we are."[11] The two firms battled for subscription supremacy through 2003 and 2004, but by the spring of 2005, Wal-Mart had backed down. Hastings negotiated a symbiotic arrangement with the CEO of Walmart.com—Wal-Mart would return to its core competency of selling DVDs and the two companies would promote one another.

Following the completion of the agreement with Wal-Mart, Hastings looked ahead: "We're not celebrating victory at Netflix, though, because Wal-Mart never gave its best shot. Whereas Blockbuster is spending hundreds of millions of dollars, so when we beat them, it will be celebratory."[12]

Competition in the Digital Distribution Market

Even with the agreement with Wal-Mart and Blockbuster's declining presence, Netflix had to continue to innovate. Thanks to the proliferation of digital distribution, by 2009 the video rental industry was once again in revolutionary upheaval. Just as Netflix's subscription model had upended Blockbuster's bricks-and-mortar approach, digital distribution threatened to upend rentals by mail.

To respond to this threat, Hastings was positioning Netflix as a film investor and source of high-quality content. "Our focus is on getting to 5 million, 10 million, 20 million subscribers and

[11] Sauer, "How I Did It: Reed Hastings, Netflix."
[12] Ibid.

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becoming a company like HBO that transforms the entertainment industry," Hastings said. "We want producers and directors to be able to find the right audience, to change the experience of helping people find movies they love."[13] Such positioning demanded a new kind of supply chain management that would be critical for Netflix as it sought to broaden its streaming-video offerings.

Current Netflix subscribers were entitled to almost limitless viewing of on-demand, near-DVD-quality online content through a feature known as "Watch Instantly." As of May 2009, more than 12,000 movies and television shows were available through this service.[14] In November 2008 Netflix signed a deal with Microsoft allowing subscribers to stream on-demand movies through their Xbox 360 video game consoles. And in January 2009, Netflix announced a deal with electronics manufacturers Vizio and LG to allow instant streaming of Netflix movies to subscribers' high-definition television sets.

Netflix also placed some bets in the media hardware market. In May 2008 it announced that Roku, a California-based consumer electronics firm, would produce the first television set-top media-streaming device to carry the Netflix brand name. The Netflix-branded Roku device, which retailed for as low as $79.99 in February 2010, provided unlimited access to Netflix's entire library of digital movie and television content. Industry analysts characterized the Roku play as an attempt by Netflix to enter the coveted "living room" space—highly valued because consumers had shown clear preferences for watching movies on their high-definition television and audio sets, rather than on their laptop screens.

But the battle for the living room was far from over. In March 2007 Apple entered the market via Apple TV, a media-streaming device designed to integrate seamlessly with the iTunes and iPod ecosystems. Similarly, Amazon was exploring deals with various cable providers to position its Amazon Video on Demand (VOD) in the living room. If Netflix's Roku was to overcome these challengers, it would need to differentiate itself in some meaningful way (see **Exhibit 9**).

In the battle for new subscribers—and the fight to keep existing customers—Netflix faced some very formidable opponents. Apple's iTunes ecosystem offered thousands of movies and television shows in addition to music and podcasts. Amazon's VOD, together with its MP3 store and Kindle e-reader, was yet another competitive content ecosystem. Cable giant Comcast had a VOD service bundled with many of its monthly cable subscription packages. Sony and other distributors of Blu-ray discs began offering free digital downloads with every Blu-ray movie or television purchase. Additionally, the Blu-ray Live online service offered on-demand updates to Blu-ray disc content and could evolve into its own direct channel for digital movie and television distribution. Entertainment media companies such as NBC-Universal, Twentieth Century Fox, and Viacom (owner of Paramount Pictures, MTV, Comedy Central—and a former parent of Blockbuster) partnered to launch Hulu, a Web-based video service offering free and unrestricted access to a vast library of film and television titles. Google owned and operated YouTube, the Internet's most popular video site. And, of course, the Internet itself had reduced barriers to entry for savvy startups wishing to join the fray. Amid this chaos, one thing had become abundantly clear: Netflix would need something other than its existing brand equity (largely built in the predigital age) to establish itself as the premier distributor of digital film and television content (see **Exhibit 10**).

[13] Ibid.

[14] http://en.wikipedia.org/wiki/Netflix.

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Netflix had reason to be optimistic, however. Widespread distribution of digital content was limited by the bandwidth and speed of home Internet connections. As of August 2008, the median real-time download speed for U.S. household Internet connections was 2.3 megabits per second (mbps).[15] And recent studies had shown that more than 15 percent of American households still relied on outdated, dial-up Internet connections.[16]

Although he knew he would need a smart strategy going forward, Hastings remained hopeful:

> *Netflix has customer loyalty; it's a passion brand. I've always thought trying to change consumer behavior is scary, and most companies that promote that fail. But when it works, like iPod, it works big. . . . We want to be ready when video-on-demand happens. That's why the company is Netflix, not DVD-by-Mail.*[17]

Digital entertainment had been distributed to millions of users for many years, but consumers were not fixed in their purchasing, renting, and viewing habits. Their preferences would, however, determine the future of the digital media production and distribution businesses. Would they prefer to buy their music, movies, television shows, books, and other content from the same provider and over the same channel? Or would they continue to see different media forms as distinct products with distinct purchasing and use occasions, thus purchased from different vendors? And would consumers ultimately prefer to buy their content a la carte, in iTunes fashion, or pay a monthly fee for virtually unlimited rental content? Finally, would consumers prefer to stream movies to their television sets or did they prefer the mobility offered by DVDs—or would they demand both? Strong arguments could be made for any of these scenarios, and Netflix had to bet on some now.

As Hastings sat at his desk, he wondered whether Netflix should continue its push into the VOD business, given the stiff competition posed by Amazon and Apple. He decided to ask the director of marketing how he thought Netflix should form and maintain partnerships to execute an entry into the VOD market. Lastly, Hastings wondered how Netflix could leverage the lessons learned in its competition with Blockbuster in this new space.

Analysis

1. In its competition with Netflix, where did Blockbuster go wrong? How was the use of customer data a key differentiator? How might Blockbuster have better positioned itself against Netflix?

2. What are the core competencies of Netflix's current business model (primarily DVD-by-mail with an online component)? Assess the value of Netflix's business as described in the case.

3. What effects will the rise of the VOD market likely have on Netflix's business model? How does VOD threaten Netflix's business? What opportunities does it present?

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[15] Communications Workers of America, "National Study of Real-Time Internet Connection Speeds Shows U.S. Falling Further Behind Other Advanced Nations," August 12, 2008, http://www.cwa-union.org/news/national-study-of-real-time-Internet-connection-speeds-shows-u-s-falling-further-behind-other-advanced-nations.html.

[16] Ibid.

[17] Sauer, "How I Did It: Reed Hastings, Netflix."

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4. Which of Netflix's current competencies can it best leverage as a competitive advantage in VOD? Which might be liabilities? (For this question, refer to the "Comparing Value Drivers in the Video Rental Market" section.)

5. What kind of partnerships should Netflix prioritize: partnerships with content providers or with hardware/device manufacturers?

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Exhibit 1: Domestic Media and Entertainment Industry ($ in millions)

	2008	2007
In-store rental	5,797	6,215
Vending machine	377	198
By-mail rental	2,128	1,789
Physical film rental market	8,302	8,202
Cable video-on-demand (VOD)	1,164	1,038
Digital VOD	258	166
Subscription VOD	468	277
Digital film rental market	1,890	1,481
Total film rental market	10,192	9,683
Physical retail	16,083	15,946
Digital retail	437	269
Film retail market	16,520	16,215
Game software (rental and retail)	8,886	6,667
Game hardware and accessories	7,975	7,000
Game portable hardware, software, and accessories	4,469	4,309
Total game market	21,330	17,976
Total U.S. media entertainment market	48,042	43,874

Source: Blockbuster 2008 Annual Report

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Exhibit 2: Netflix Income Statement ($ in millions)

Period ending:	31-Dec-08	31-Dec-07	31-Dec-06
Total revenue	1,364,661	1,205,340	996,660
Cost of revenue	910,234	786,168	626,985
GROSS PROFIT	454,427	419,172	369,675
Operating expenses			
Research and development	89,873	71,395	48,379
Selling, general, and administrative	249,375	270,812	261,679
Nonrecurring	(6,327)	(14,196)	(4,797)
Others	—	—	—
Total operating expenses	332,921	328,011	305,261
OPERATING INCOME OR LOSS	121,506	91,161	64,414
Income from continuing operations			
Total other income/expenses net	12,452	20,340	15,904
Earnings before interest and taxes	133,958	111,501	80,318
Interest expense	2,458	—	—
Income before tax	131,500	111,501	80,318
Income tax expense	48,474	44,549	31,236
Minority interest	—	—	—
Net income from continuing operations	83,026	66,952	49,082
Nonrecurring events			
Discontinued operations	—	—	—
Extraordinary items	—	—	—
Effect of accounting changes	—	—	—
Other items	—	—	—
Net income	83,026	66,952	49,082
Preferred stock and other adjustments	—	—	—
Net income applicable to common shares	83,026	66,952	49,082

Source: Yahoo! Finance

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Exhibit 3: Netflix Balance Sheet ($ in millions)

Period ending:	31-Dec-08	31-Dec-07	31-Dec-06
ASSETS			
Current assets			
Cash and cash equivalents	139,881	177,439	400,430
Short-term investments	157,390	207,703	—
Net receivables	5,617	2,254	3,155
Inventory	—	—	—
Other current assets	58,559	29,136	24,833
Total current assets	361,447	416,532	428,418
Long-term investments	—	—	—
Property, plant, and equipment	124,948	77,326	55,503
Goodwill	—	—	—
Intangible assets	106,091	132,455	105,877
Accumulated amortization	—	—	—
Other assets	3,051	4,465	3,381
Deferred long-term asset charges	22,409	16,242	15,600
Total assets	617,946	647,020	608,779
LIABILITIES			
Current liabilities			
Accounts payable	131,738	140,911	123,769
Short/current long-term debt	1,152	—	—
Other current liabilities	83,127	71,665	69,678
Total current liabilities	216,017	212,576	193,447
Long-term debt	37,988	—	—
Other liabilities	16,786	3,695	—
Deferred long-term liability charges	—	—	1,121
Minority interest	—	—	—
Negative goodwill	—	—	—
Total liabilities	270,791	216,271	194,568
STOCKHOLDERS' EQUITY			
Misc stock options warrants	—	—	—
Redeemable preferred stock	—	—	—
Preferred stock	—	—	—
Common stock	62	65	69
Retained earnings	108,452	26,363	(40,589)
Treasury stock	(100,020)	—	—
Capital surplus	338,577	402,710	454,731
Other stockholder equity	84	1,611	—
Total stockholder equity	347,155	430,749	414,211
Net tangible assets	241,064	298,294	308,334

Source: Yahoo! Finance

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Exhibit 4: Overview of Netflix Subscription Plans, May 2009

Price	DVDs Out at a Time	DVD Limit per Month	Hours of Streaming Media
$4.99	1	2	2
$8.99	1	Unlimited	Unlimited
$13.99	2	Unlimited	Unlimited
$16.99	3	Unlimited	Unlimited

Source: Netflix.com

Exhibit 5: Renting a DVD Through Netflix

Source: Netflix.com

Exhibit 6: The Netflix Envelope

Netflix's ubiquitous red envelope became a recognizable marketing symbol for the company.

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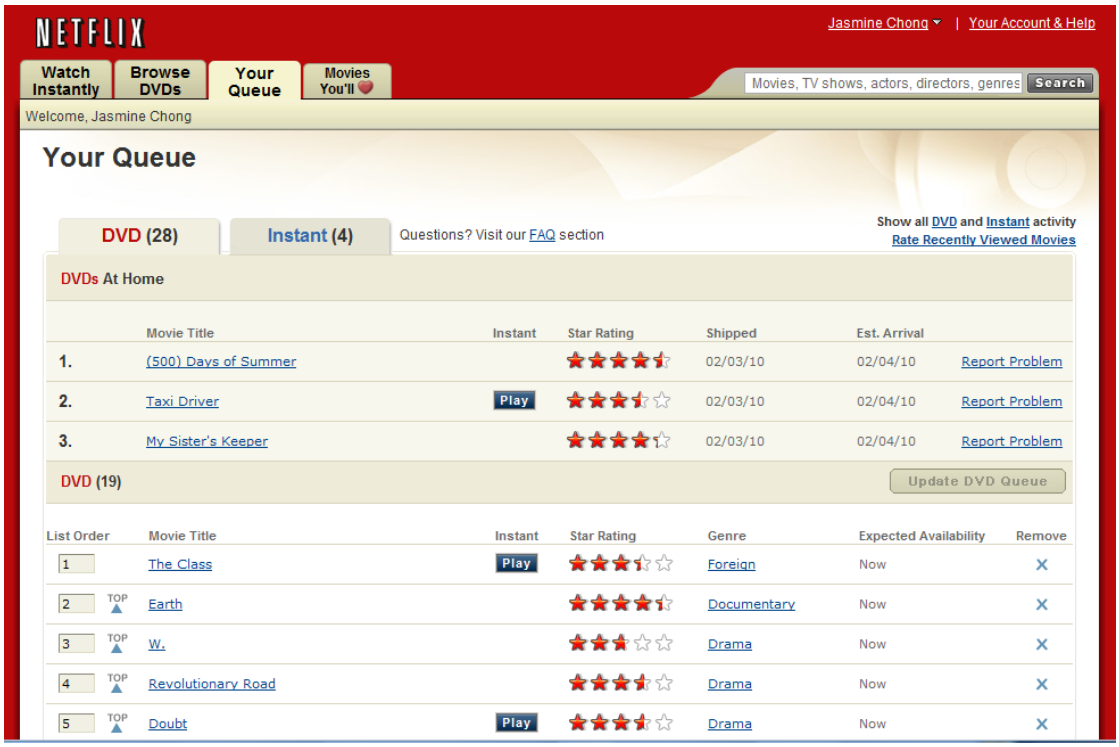
Exhibit 7: Netflix's Recommendation Platform

NETFLIX QUEUE



NETFLIX'S "MOVIES YOU'LL LOVE" SECTION

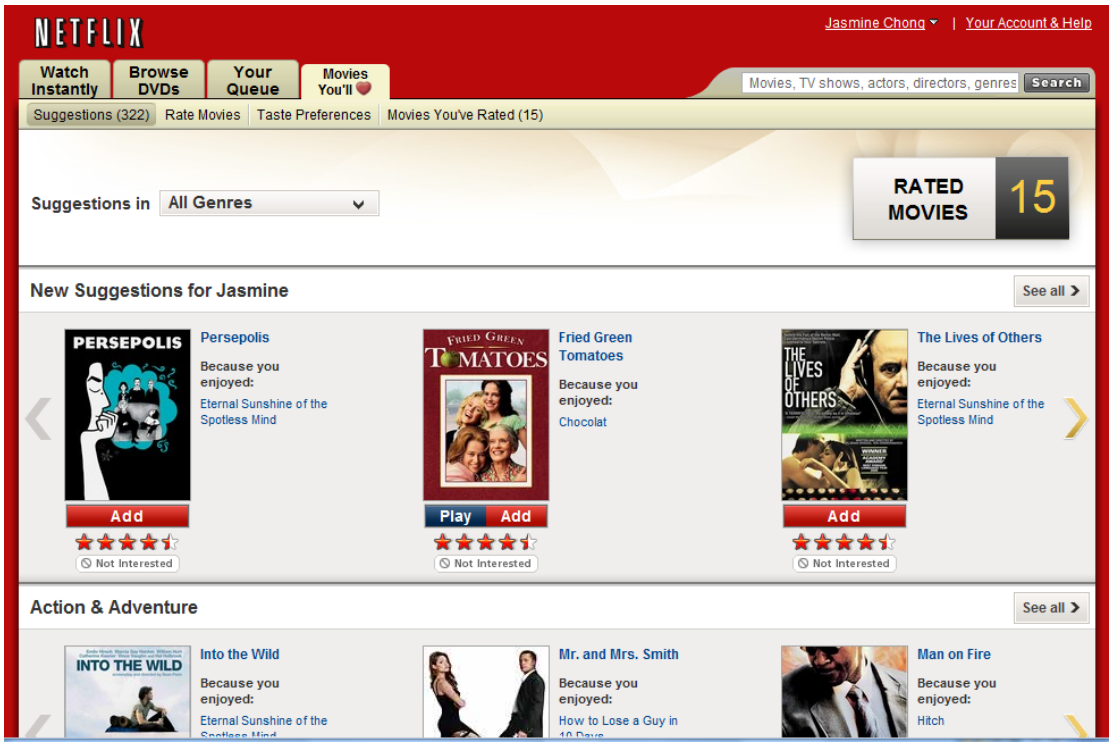


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Exhibit 7 *(cont'd)*

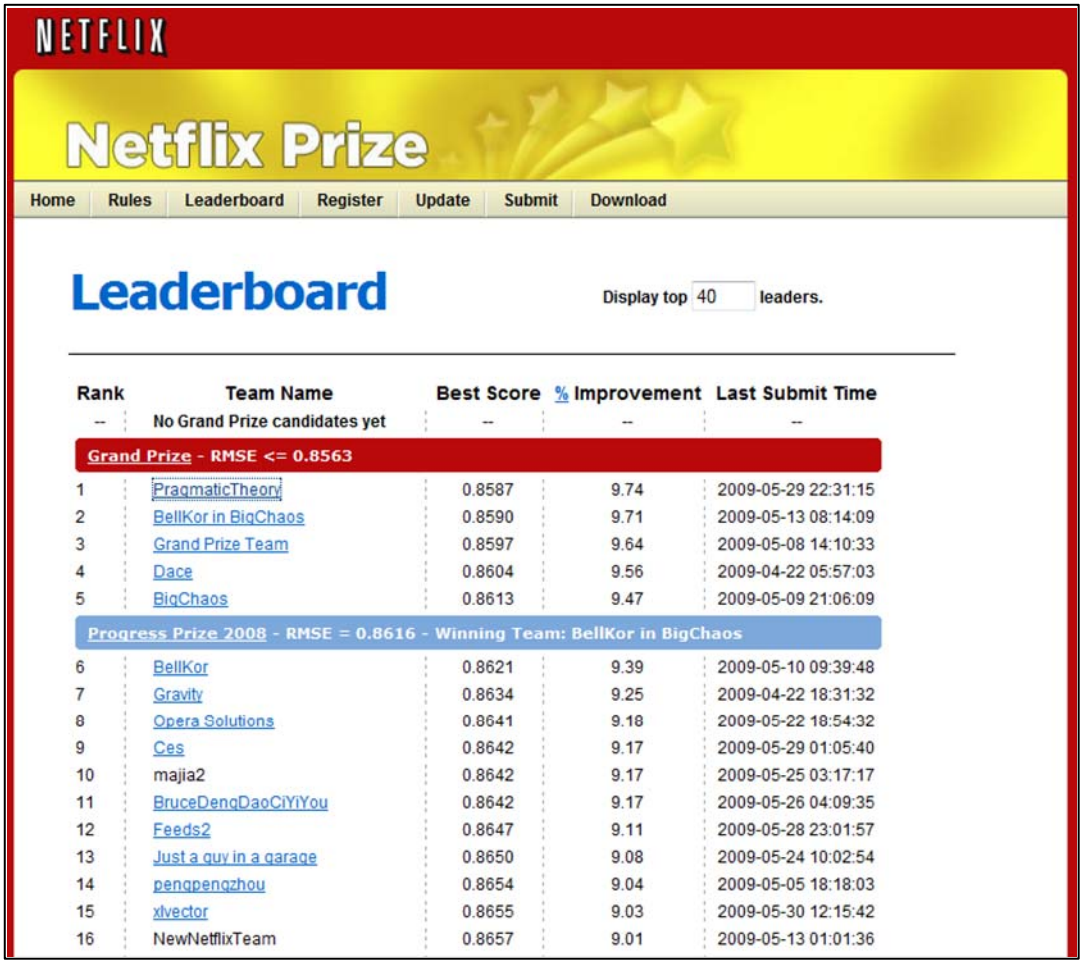
Netflix's "Movies You'll Love" section uses the Cinematch platform to identify movies that would likely appeal to specific customers. These recommendations are based on:

- The characteristics of the films themselves, compared with the characteristics of the movies already rented by the consumer
- The customer's ratings of rented and queued movies
- The cumulative ratings of all Netflix customers

The Cinematch platform uses multivariate regression tools to determine the importance of each factor to the customer. These correlations are updated automatically by Netflix's system, allowing the company to continuously learn the customer's preferences and movie rental habits.

This market knowledge also allows Netflix to decisively influence demand and consumer behaviors by promoting movies that otherwise would not be rented.

Exhibit 8: Netflix Prize Leaderboard, May 2009



NETFLIX

Netflix Prize

Home | Rules | Leaderboard | Register | Update | Submit | Download

Leaderboard

Display top 40 leaders.

Rank	Team Name	Best Score	% Improvement	Last Submit Time
--	No Grand Prize candidates yet	--	--	--
Grand Prize - RMSE <= 0.8563				
1	PragmaticTheory	0.8587	9.74	2009-05-29 22:31:15
2	BellKor in BigChaos	0.8590	9.71	2009-05-13 08:14:09
3	Grand Prize Team	0.8597	9.64	2009-05-08 14:10:33
4	Dace	0.8604	9.56	2009-04-22 05:57:03
5	BigChaos	0.8613	9.47	2009-05-09 21:06:09
Progress Prize 2008 - RMSE = 0.8616 - Winning Team: BellKor in BigChaos				
6	BellKor	0.8621	9.39	2009-05-10 09:39:48
7	Gravity	0.8634	9.25	2009-04-22 18:31:32
8	Opera Solutions	0.8641	9.18	2009-05-22 18:54:32
9	Ces	0.8642	9.17	2009-05-29 01:05:40
10	majia2	0.8642	9.17	2009-05-25 03:17:17
11	BruceDengDaoCiYiYou	0.8642	9.17	2009-05-26 04:09:35
12	Feeds2	0.8647	9.11	2009-05-28 23:01:57
13	Just a guy in a garage	0.8650	9.08	2009-05-24 10:02:54
14	pengpengzhou	0.8654	9.04	2009-05-05 18:18:03
15	xlvector	0.8655	9.03	2009-05-30 12:15:42
16	NewNetflixTeam	0.8657	9.01	2009-05-13 01:01:36

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Exhibit 9: Overview of Selected VOD Offerings

	Number of Titles	Content	Payment Type	Availability	Platform
Amazon Video on Demand	5,000	Feature films, TV programs	Buy/rent	USA	All
CinemaNow	1,500	Feature films	Buy/rent	Worldwide	Microsoft Windows
Hulu	600	Feature films, TV programs	Free	USA	Microsoft Windows, Mac OS X, TV
iTunes Store	2,000	Feature films, TV programs	Buy/rent	USA, UK, Australia, and Canada	Mac OS X, Microsoft Windows, Apple TV, iPod Touch, iPhone
Movielink	1,800	Feature films	Buy/rent	USA	Microsoft Windows
Netflix	>12,000	Feature films, other videos (2,500 feature films from the Starz Play library; another 9,500 videos from the Netflix library)	Subscription	USA	Microsoft Windows
Rajshri.com	>500	Bollywood TV programs, music videos, feature films	Free	Worldwide	All
ReelTime.com	2,000	Feature films, TV programs	Subscription	Worldwide	Microsoft Windows
VUDU	15,000	Feature films, TV programs	Buy/rent	USA	VUDU Box
ZML	3,950	Feature films	Buy	Worldwide	All

Source: Company Web sites, Wikipedia

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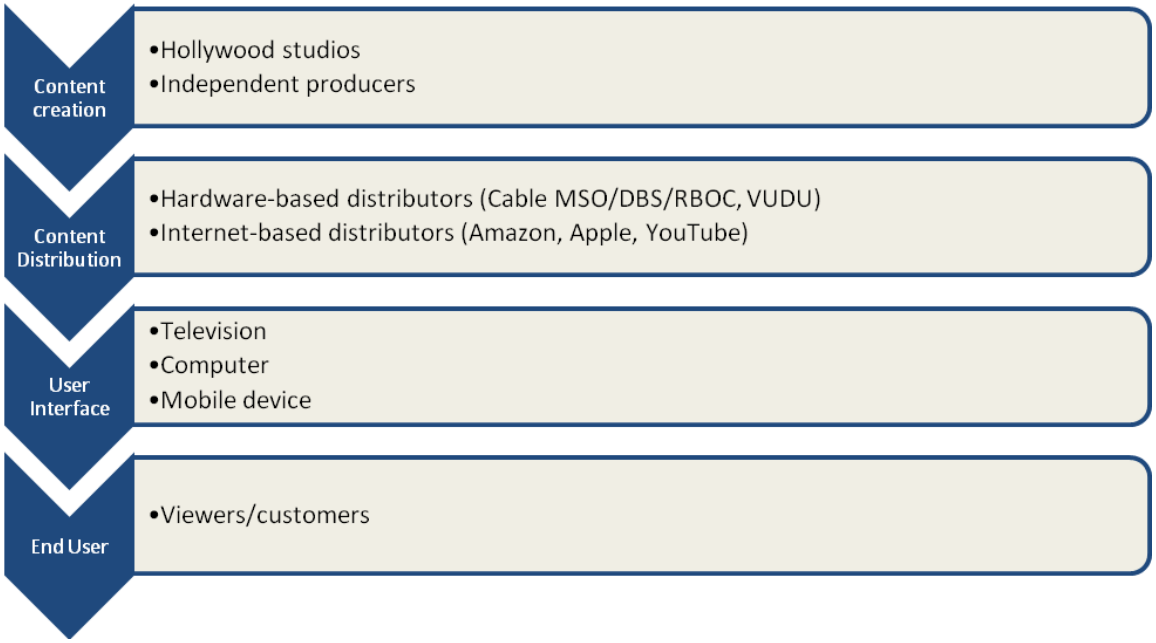
Exhibit 10: The Video-on-Demand Value Chain



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