

At the Digital Crossroads: The Future of Home Video

Pundits debate whether digital distribution will erode value or launch a new stage of growth for the movie industry. Based on a consumer buying simulation of the anticipated 2010 marketplace, Oliver Wyman believes the right portfolio of video on demand (VOD)/Internet offers will increase annual U.S. consumer movie spending to buy and rent movies by \$5-10 billion on a base of approximately \$50 billion.

However, realizing this opportunity will require changes to the status quo. Accordingly, this white paper presents findings and perspectives for movie industry leaders to consider as they move forward.

Consumers will pay for enhanced VOD (high-definition and day-and-date of DVD release). \$7-9 pricing maximizes revenue for the entire industry and aligns studio/distributor interests to enable effective VOD marketing.

Internet rentals can also capitalize on low price sensitivity. In the short-term, **Internet rentals are more effective than sell-through** for monetizing movies.

Over the long term, ecosystem **moves to enhance the value of buying digital movies will pay off** in higher unit demand and willingness-to-pay (e.g., Internet storage, device compatibility).

DVD retailers can offer hybrid physical/digital products to drive unit sales, revenues, and gain customer traction on the Internet.

Context: Digital Puts Video at a Crossroads

Since 2005, the U.S. home video market has faced an uncertain growth path: consumer spending on physical media actually declined from 2004 highs, and early read-outs on 2007 suggest essentially flat revenues compared to the prior 2004 highpoint (see Exhibit 1).

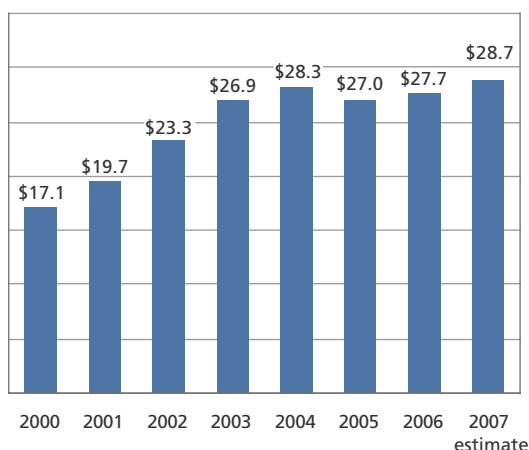
Blu-ray is certainly likely to reignite some growth, but many executives and industry watchers sense that the market's overall growth prospects increasingly rest on how the future plays out for digital, not physical, distribution: VOD from cable MSOs, telcos, and satellite operators, plus the various emerging forms of Internet-delivered video. Today, while digital revenues remain modest, numerous indicators of future demand are mounting (see Exhibit 2).

In 2008, executives across the home video value chain wrestle with these key questions about the digital-centric future, even as they ramp up their digital activities:

- How much of digital consumption will be incremental versus cannibalizing physical media?
- What business models, pricing approaches, and marketing strategies will achieve the best results?

Exhibit 1 Consumer spending on physical media

U.S. consumer spending on physical filmed entertainment (\$ billions)



Source: Veronis Suhler Stevenson, Communications Industry Forecast, 2006, Oliver Wyman analysis.

- What are the tradeoffs of taking what's there via current digital business models versus trying to foster better models?

With mega-questions like these, home video is at a crossroads. Digital distribution may be another “windfall”—a source of substantial incremental revenue like DVDs were for studios, content distributors, and device players alike. Alternatively, misaligned incentives, disruptive business models, and a tipping point toward consumer control could result in a flattened value growth path—in which much of home video usage migrates to digital from physical media, but there is not a corresponding increase in value creation for the industry.

With these contrasting possible futures in mind, industry executives are balancing stakeholders' expectations for near-term P&L performance with long-term growth and strategic positioning. To face this challenge, we believe they need to develop and act on a guiding “true north” view of the future of the market.

Study Approach: Start with the Consumer

In pursuit of this “true north” view, video executives certainly face important decisions on how to play value chain and competitive dynamics. But we see the first-order challenge as one of understanding what tomorrow's consumers will most value and be willing to pay for.

Exhibit 2 2008 milestones in video evolution

- 35% of households will have digital cable
- 64% of households will have a broadband Internet connection
- 46% of households will have a high-definition television
- 14% of households will have a high-fidelity optical disc player (e.g., HD DVD or Blu-ray)
- 75% of Internet users and 45% of consumers have watched online video
- 75% of major broadcast network primetime programming will be available for Internet download within 24 hours

Source: Veronis Suhler Stevenson, Kagan Media & Entertainment, Nielsen Research, Oliver Wyman analysis.

To gain this type of understanding, Oliver Wyman’s Media & Entertainment practice conducted an advanced research study centered on a consumer buying simulation exercise that:

- Simulates actual purchase/consumption decisions that consumers make and/or will make in the future
- Directly, behaviorally tests how consumers will choose among competing offers from physical media, VOD, and Internet distribution
- Helps optimize offers that content/distribution partners choose to make in the near term (what content, what window, what pricing model, what price, what level of marketing support?)
- Prioritizes strategic and investment decisions on how, and with whom, to enhance the longer-term digital value proposition to consumers

This web-based study was conducted in November 2007, with over 2,000 U.S. consumers, and focused on feature-length movies that consumers pay for, as opposed to episodic TV programming or other types of video entertainment (these paid-for movies constituting a \$50 billion business today across box office, DVD sales/rentals, PPV and VOD, premium movie channels, and Internet sales/rentals).

In the study, research respondents first completed a profile of their current video buying/usage behavior, then absorbed interactive “conditioning” materials explaining a range of anticipated and possible 2009-2010 timeframe offers. Finally, they responded directly to a series of simulated choices among new competing offers, indicating how their current buying/usage behavior would be different when new offers are available. The baseline behavior was of course calibrated back to the actual consumption/spend levels of today to correct for respondents’ tendency to overstate.

This research employed an advanced set of techniques (evolved over 30+ years from conjoint analysis) to test next-generation offers and features across three media (see Exhibit 3).

The findings, implications, and recommended industry next steps in this white paper are derived from our analysis and interpretation of this research. The last section of this document provides further detail on the approach.

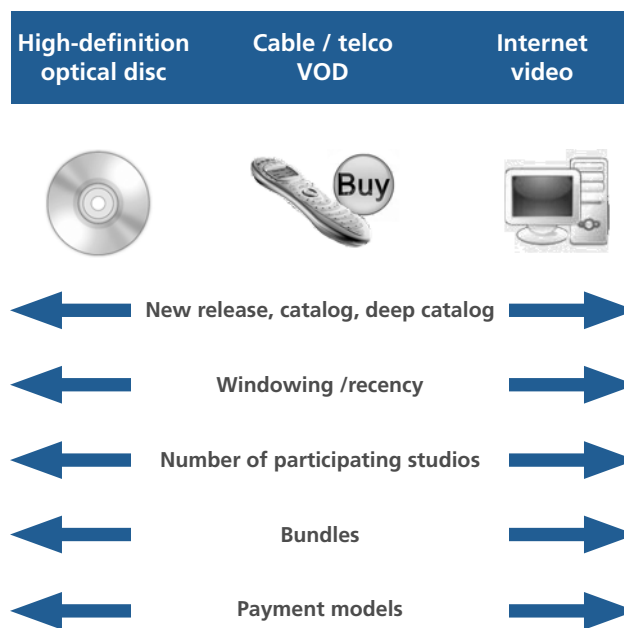
Findings: Optimizing the Digital Opportunity

Based on this in-depth assessment of future consumer behavior, we believe a well-managed and fully-marketed portfolio of advanced movie offers in the U.S. would create \$5-10 billion in incremental yearly consumer movie spending by 2010—i.e., 10% growth or more from current levels (see sidebar for a definition of potential offers envisioned).

This upside primarily results from growth in digital movie distribution, where MSO/Telco VOD channels and Internet Video largely offer an opportunity to complement, rather than cannibalize, consumer spending on Box Office and DVDs.

If managed optimally—across windows, payment models, price levels, and usage rights/management features, and with marketing effectively driving awareness of new offers—digital video offers can:

Exhibit 3 Illustrative conjoint depiction



Tested: consumer interest in paying for feature-length movies through one of the three home video channels

- Tap substantial, previously unmet video demand, not just cannibalize existing views. *With the right offers, we see around \$4 of new digital revenues for every \$1 of physical media revenues shifted to digital.*
- Concentrate DVD cannibalization toward low-priced, low-margin rentals rather than DVD sales. *The whole ecosystem should care about this dynamic, not just studios—please see next section for more on this.*

Modestly Tapping Latent Demand Drives Growth

Before we get into too much detail, it's important to put these growth projections in perspective, as many future-oriented studies tend to envision rosy growth prospects that are predicated on seismic and ultimately unrealistic shifts in consumer behavior and spend.

The growth potential called out here requires new digital offers to spur just a modest increase in consumers' overall time spent watching paid-for movies. Today, the average U.S. video consumer pays for approximately 3.6 hours of movie watching per month, across all distribution channels from Box Office onward (this number does not include free ad-supported movies on broadcast TV networks or basic cable channels).

So what kind of increase in paid viewing are we talking about?

The portfolio of attractive digital offers considered here would capture an incremental 20 minutes per month per consumer. Said differently, this equates to attractive digital offers driving an average of about three additional paid-for movies each year, per consumer (see Exhibit 4).

Optimizing VOD and Internet Rental Prices Matters

As just seen, attractive digital offers tap latent demand for movie watching. However, under all scenarios there is also some shift of physical media revenue to digital revenue. Our research highlights that digital pricing—especially VOD/

rental pricing—has a major impact on how much true incremental value the movie ecosystem can create with digital offers.

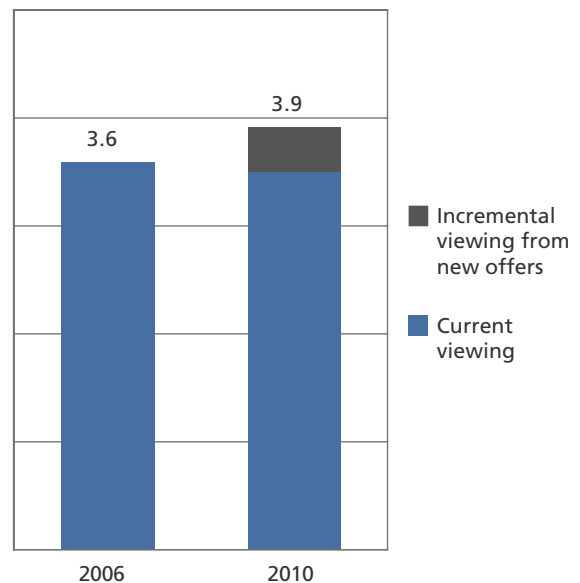
Consider these two insights on demand for digital rentals (VOD and Internet rentals):

1. Demand for enhanced new VOD/rental offers is relatively inelastic. Increasing pricing from \$3.99 to \$7-9 for premium HD /day-and-date in addition to the basic tier of SD, standard window VOD at today's \$4, drives a substantial increase in overall consumer spending on rentals: essentially, doubling the price for a higher-value VOD offer reduces overall VOD unit volume by only about 20% (see Exhibit 5).

2. Higher digital rental pricing for new offers concentrates DVD cannibalization on rentals. Optimizing pricing for high-value new VOD/Internet rental offers reduces cannibalization of DVD sales by more than 40% vs. the cannibalization that occurs with \$3.99 pricing. This makes intuitive sense: even loyal DVD buyers are tempted to forego buying DVDs if HD VOD is available at about \$4, on the same day as the DVD is released in stores. But at \$7-9 for the same VOD offer, they still value

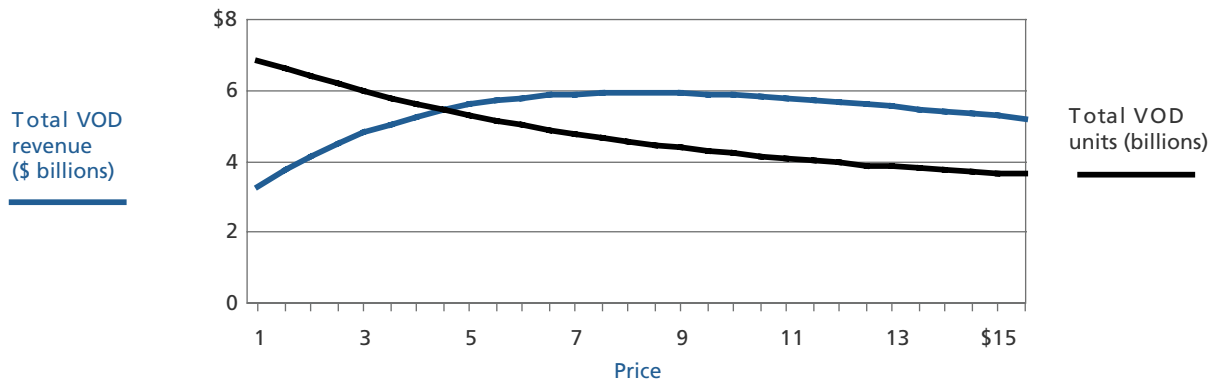
Exhibit 4 Increased movie consumption from new offers

Monthly movie hours for the average U.S. video consumer



Source: Oliver Wyman research and analysis.

Exhibit 5 Demand elasticity for high-definition, day-and-date VOD



Assumes availability of a \$3.99, standard-window, standard-definition VOD offer in addition to a high-definition, day-and-date with DVD, VOD offer.

Source: Oliver Wyman research and analysis.

the extra benefit of owning a DVD for the (now somewhat lesser) incremental price over VOD/Internet rental. DVD renters, meanwhile, are not dramatically swayed by the higher VOD pricing, being willing to pay for convenience.

Clearly, studio executives think a lot about cannibalization and care deeply about building a digital distribution approach that preserves and complements the highest-value elements of their physical media distribution and partnerships.

But why should MSO, telco, satellite, and Internet executives care? To their stakeholders and profit economics, “cannibalization” may sound good. However, demand findings here show there would be money “left on the table” for the entire industry by failing to price new enhanced VOD/rental offers at the level consumers value them: consumers are willing to pay, and revenue is being lost if that willingness is not reflected.

Also, MSO, telco, satellite, and Internet executives should care *because* studios care. By far, the single biggest pool of marketing funds to drive awareness of VOD and other new digital offers is that which studios use today to market the DVD launch of new releases: about \$600M annually in the U.S., across all major studios. If there are high-value VOD offers made available to consumers at the same time as DVDs—offers that tap latent demand and minimize impact on DVD

sales—then studios would be motivated to start using this marketing spend as a “call to action” for not just DVDs, but also to highlight availability of their titles through new channels like VOD or the Internet.

Taken together, these two factors—consumer willingness to pay and studio likelihood to truly promote HD, day-and-date VOD only if it is priced rationally—create a major difference in potential future VOD revenues. Compared to the optimal VOD offers described here, \$4-5 day-and-date VOD, with less studio marketing support, would reduce MSO/telco VOD revenues by up to 50% vs. what is achievable with an optimal approach.

Said differently, several billion dollars in VOD revenue may be foregone without progressive thinking on how to bring enhanced VOD offers to market.

However, if a new optimal set of enhanced VOD/rental offers is in place, and using home video marketing spend to drive demand shows traction, it could then be natural for studios to begin considering HD, day-and-date release to digital channels as a new normal way of doing business.

Imagine the sign-off at the end of a TV spot for the latest Hollywood blockbuster: “Buy it today on DVD/Blu-ray, watch it on-demand on Channel 1000 from your cableco, or download it from *moviemall.com*.”

Additional Considerations for Internet Video

The demand simulation behind this white paper measures “pure” demand for new offers—simulating a world where new offers are available to all respondents, and respondents are fully aware of each offer’s benefits and tradeoff considerations. Internet video distribution—to PCs, to next-gen set-top boxes, and to Game Consoles—clearly has some way to go in order for real-world availability and awareness constraints to fade away.

However, even with modest market-consensus levels of improvements on these fronts—e.g., broadband penetration, improvement of download times, awareness and belief of how it works—our research suggests an approximately \$2.5 billion Internet movie distribution market in the U.S. by 2009-2010. While exact size is uncertain, the general magnitude of this addressable market warrants strategic focus and investment by the movie ecosystem.

Executives responsible for Internet movie distribution should consider the following with respect to on-demand/rental models:

- As with VOD via cable MSOs, telcos, and satellite operators, consumer demand for Internet rentals of latest-release films in HD is fairly inelastic; \$7-9 pricing for high-value new offers would have important benefits (see prior section) to all within the ecosystem.
- Employing a consistent pricing scheme between Internet and VOD offers may further enable the use of studio marketing spend to help define and drive the Internet channel.

Of course, Internet video also offers digital sales opportunities that are unavailable via today’s Pay TV offerings (though that’s likely to change, too, with next-generation set-top boxes, but for now Internet players will lead the way). However, consumers place a relatively low premium on owning digital movies versus renting limited-time access to them. Our research shows their willingness to pay for ownership hitting a significant plateau at about \$3 above



optimal rental pricing (“plateau” because higher pricing, up to about \$17, does not much diminish achievable overall revenue but it does not increase it either).

Consider this relatively small own-versus-rent premium as compared to that of DVDs, where for new releases the premium is up to \$15 more for buying than renting. Again, these data-driven findings make intuitive sense: Digital ownership today implies a number of shortcomings and worries that DVD ownership does not (Exhibit 6).

As part of this research, we tested the impact of some important potential “digital assurance” offer elements—things like a consistently-offered, free, and permanent “digital locker” online storage, convenient transferability across multiple devices from multiple manufacturers, and DVD-burning rights.

If available, these things matter a lot to consumers, driving additional willingness to buy digital movies versus rent them, and to pay an additional price of up to \$5 more than for digital movies without these features. These benefits are especially seen by age cohorts of 35 and under, and those who own or intend to own advanced devices like game consoles, DVRs, notebook PCs, and personal video players.

Exhibit 6 The value of physical ownership

	High-definition optical disc	Internet video
		
Perishability	Permanent physical ownership	Potential for data loss or file deletion
Transferability	Compatible with all DVD players	Compatible with few devices/software programs
Simplicity	Plug-and-play functionality	Potentially complex digital experience
Collection value	Visually impressive to display on a shelf	None

Source: Oliver Wyman research and analysis.

Our findings imply that Internet movie distribution businesses may be best served to focus short-term attention on marketing high-value rentals (where proportionally speaking, there is more willingness to pay right now), and longer-term on helping the ecosystem develop and popularize ways of doing business that address the above-described limits on digital ownership's benefits. By doing so, digital sell-through offers could ultimately match or even exceed the perceived value of physical (DVD) ownership for some consumers.

Meanwhile, ecosystem partners should likely be conservative on digital sales pricing moves—lower pricing does not tap a beneficial elasticity of demand, and could be setting consumer expectations at a level that undermines the longer-term opportunity to develop an electronic sell-through market at pricing more like that of today's DVD sales.

Physical Media: Beyond the Format War

As digital offers evolve, DVD stakeholders have expected and planned for some degree of cannibalization. We believe, however, that cannibalization during 2009–2010 will be limited to about 3% of traditional DVD revenues (not including new growth from the sales of new high-definition optical discs).

This view reflects two research-supported facts:

- Much of the growth from digital movie distribution would be tapping new, latent demand. (New revenues outstrip physical-to-digital shifted revenues by four to one.)
- If studios, cable operators, telcos, satellite players, and Internet companies introduce well-managed new offers, cannibalization of DVDs would concentrate more in the rental segment of the market than the higher-revenue and higher-margin DVD sales segment.

Additionally, digital offers retailers and DVD ecosystem stakeholders two major new growth opportunities.

First, many current DVD users who desire the traditional DVD experience (including portability and ownership) are likely to shift spending to high-definition optical discs (such as Blu-ray and HD-DVD) rather than migrate to digital channels. We believe that growth in sales of high-definition optical discs will allow retailers and other physical media stakeholders to overcome the effect of digital cannibalization, and yield net growth in DVD revenues of nearly 6% by the 2009–2010 time frame.

(Wide availability of all studios' content via a single-standard, affordably priced disc player is a condition of this statement, one which appears to have become more likely in light of Toshiba's recent announcement.)

Second, digital/physical bundled offers could further help retailers to capitalize on digital opportunities. Bundling a digital file as a “second session” or “portable copy” on discs offers DVD retailers a way to drive more perceived value of next-generation discs—either to sell more of them, or to command an additional price premium on those discs they would sell anyway (about \$2 based on our buying simulation).

Alternatively, offering DVD buyers a companion digital file they get via the Internet provides similar end-user appeal—and for the retailer, would allow formation and development of an online relationship with their bricks-and-mortar customers.

Implications and Next Steps

We have summarized the most broadly applicable findings from the movie-buying simulation research we conducted. Readers of this know that each of the companies in this space have a unique context that defines a slightly different “lens” through which they view and consider acting on these findings, as compared to the generalized implications discussed here.

While fully acknowledging this diversity of business situations, we nonetheless put forth the following model for the ecosystem and the important sub-businesses within it.

Attractive Digital Offers Identified by This Study

Introducing and aggressively marketing these offers (referred to as the “attractive consumer offers” within the rest of this white paper) would create \$5-10 billion in yearly U.S. incremental consumer spending on paid-for movies:

- **MSO/telco VOD:** New release movies in HD on same day-and-date as DVD release, for \$7-9
- **Internet video rentals:** New release movie in HD, same day-and-date as DVD, for \$7-9
- **Internet video sales:** New release movies in HD, same day-and-date as DVD, with “ownership assurance” elements to build perceived value of digital buying

Projected impact of these offers includes assumptions on increased *availability* (e.g., digital cable/IPTV roll-out and broadband penetration) and *awareness* (increased industry marketing, especially by studios).

Please note that the possible impact of *piracy* was not directly measured here. However, directionally, earlier release of legally viewable digital offers, as discussed here, may be one force that reduces piracy.

Top-level Implications

Studios and content distributors may want to consider what kind of “end game” offer structure is likely to be in place when the current state of flux settles down—and more importantly, what kind of end-game they want to be in place.

Based on consumer demand insights presented here, and the basic economics of the movie creation and monetization businesses in the mix, we can imagine a three-tiered portfolio of future home/personal movie offers:

- 1) Completely portable, permanent movie ownership at pricing similar to that of today’s DVD retail pricing (high-definition discs with bundled digital files or digital sales with ownership-enhancement, “digital-assurance” features included)
- 2) Enhanced VOD/Internet rental offers at \$7-9 price points (for HD movies on same day-and-date of DVD release)
- 3) Later release-window, standard definition VOD/Internet rentals continued at current pricing of about \$4 (or perhaps lower for back-catalog titles)

In addition to these, there will doubtless be continued experimentation with subscription models and ad-funded approaches. Each of these has substantial consumer appeal but—as of now—presents challenges to ecosystem economics. For the 2009-2010 time frame envisioned here, we do not believe that these alternatives to “buy” or “rent” will impact the market as much as the three offer tiers envisioned above.

Implications for Studios

It is well understood that “studio” refers to companies whose portfolios of businesses vary widely, with different degrees and types of TV assets, Internet properties, and cable distribution ownership.

Despite this, we believe demand insights here suggest certain strategic moves that would be common across studios:

- Plan that *some* erosion of DVD business (and slight erosion of box office) is inevitable and “double bet” on next-generation physical and digital media
- Encourage MSOs, telcos, and Internet partners to view HD, day-and-date VOD as new higher-value VOD offerings which consumers will pay

more for, and which can make more money for the entire ecosystem (meaning them!)

- Be willing to back up that approach by marketing VOD and Internet rentals directly alongside DVDs, leveraging considerable home entertainment marketing budgets (i.e., be format-agnostic if the offer/pricing makes sense)
- Be open with DVD retailers on expectations—and emerging data—that DVD purchases are largely driven by different consumers and reasons/occasions than usage of digital channels
- Support programs to help DVD retailers capitalize on new opportunities
- Invest in a broad range of Internet distribution strategies (across platforms and digital providers) with near-term focus on driving high-value rentals versus sell-through of digital films
- Enhance value of digital ownership by addressing the root causes of today's consumer perceptions that there is limited value to owning digital films (seek to match or even exceed the perceived benefits of portability, interoperability, and longevity, of physical media)

Implications for Content Distributors

Digital technology, and studios' likely willingness to move VOD and Internet releases into the same window as DVDs in their best-quality, HD format, creates opportunity for distributors of all types to expand their business and compete more fully across the lifecycle of movies.

We believe VOD and Internet media distributors should:

- Target new revenue opportunities by building a portfolio of traditional (i.e., SD at \$3.99 or perhaps lower for catalog titles) and new, enhanced (i.e., HD at \$7-9) VOD products
- Increase usability and practical availability of VOD/rental titles by enhancing the consumer search and discovery experience

- Replicate retailers' point-of-sale impulse purchase experience by enabling one-touch purchasing (e.g., "buy now" buttons on remote controls) and experimenting with "push" technologies
- Invest in cultivating a base of subscribers accustomed to consuming HD, digital-delivered, on-demand movies for the VOD/rental revenues they bring, but also to enable future sell-through revenue opportunities

For retailers, growth in digital infrastructure—on the Internet and in consumers' homes—allows them to complement physical media offers with digital components. This can help them enhance attractiveness of physical media offerings, and also exploit the physical media customer franchise they have today as a point of strength in developing digital customer relationships for the future.

Specifically, we believe retailers should:

- Use physical/digital bundling to enhance value of high-fidelity disc offers
- Consider how packaged media sales can help drive traffic to their Internet properties, establish web relationships with consumers, and seek to capitalize on today's lack of a clearly dominant digital video distributor
- Deepen understanding of their customers, to focus disc merchandising and promotional activity on those who most value physical media, and target digital devices and device-linked web-services offers to digitally leaning segments

Next Steps

We began this white paper by suggesting that the movie industry is at a crossroads, with digital distribution potentially being another windfall like DVDs...or becoming a reducer of value where usage migrates to digital but corresponding digital revenues and profits do not follow.

We believe our consumer demand research reveals substantial opportunities for studios and all types of content distributors, provided that there is some degree of general market acceptance of the views expressed in this white paper.

While this paper has looked ahead to 2010 in projecting impact of new digital movie offers, many of the consumer-facing moves suggested

here can be acted upon starting right now, and we urge video ecosystem leaders to consider them. ❖

Movie-Buying Simulation: Our Approach

In this study, Oliver Wyman applied Customer Value Engineering®, a proprietary suite of research and financial analysis methodologies to test future demand and optimize offers for maximum value creation.

About Customer Value Engineering

By working with clients to identify key strategic hypotheses about future competition, we create a future buying simulation that measures impact of potential market moves and connect demand insights directly to future market financial projections (Exhibit 7).

At the heart of this approach is a simulation exercise—Strategic Choice Analysis™—that presents consumers with “real world” purchase and usage occasions, and asks them to make trade-off decisions similar to the ones they might actually be making in the future.

- Respondents see eight to 12 versions of possible future “marketplaces,” with systematically varied combinations of a wide range of offer features

and levels from various competitors/options.

- By understanding all the different tradeoffs made by hundreds or thousands of consumers, the impact of each offer feature can be quantified to determine which combinations of features drive greatest demand.
- These raw demand insights are then combined with real-world market, cost, and financial data to develop an accurate and flexible model of how various possible consumer-facing moves will impact the industry, and individual ecosystem players’ performance.

How Customer Value Engineering was used in our study

To develop the insight and conclusions presented here, we designed a study that:


- Recruited **2,000 respondents representing a wide cross-section of the U.S. population** across video and device usage habits, intentions, pay-TV providers, geographies, and demographic groups

Exhibit 7 Customer value engineering methodology

Information Acceleration®


Introduce respondents to possible future offers and key features to consider

- 1 Describe the benefits of the package (demonstrated with short vignette)
- 2 Illustrate the features included in each package (show user interface and people using the service)
- 3 Summarize and reinforce key points (summary screens with text and voice-over in harmony)



Strategic Choice Analysis (SCA)

Propose 8-12 different future markets and have respondents select preferred offers



Interactive Strategy Model

Simulate market demand, consumer spending, and profitability of any future offer



- Captured **highly detailed data on respondents' current movie consumption** via a “wizard”-style online interview (including unit volume, genre viewing, buying/renting channel used, and specific titles viewed for October 2007)
- Exposed respondents to **simulated press coverage of next-generation video offers, as well as detailed step-by-step explanations** of how new video offers will work, to condition them to the expected/potential marketplace of the future
- Provided an **illustrated walk-through of how to use and respond** to the buying simulation
- **Simulated future optical-disc, VOD, and Internet-delivered video offers**, where key variables were systematically changed to understand impact on demand: release windows, library breadth/depth, picture quality, bonus features, payment options, and price points (and for Internet video, different delivery models across PC, STB, and game console concepts)
- **Allowed respondents to select as many new offers as they desired** (indicating movie views), while decreasing or holding constant their consumption of traditional offers (i.e., going to the box office, renting DVDs)

- Provided a **dynamically computed reality check of spend level** implied by new choices and opportunity to adjust choices

Through this approach, we built a strategic market model that allows “what-if” configuration of various scenarios for future offers in the market, and then across all offers, both old and new, predicts the corresponding:

- Total volume of movie viewing
- Adoption of next-generation movie offers
- Cannibalization of traditional movie offers
- Net impact on consumer spend, studio revenue, and contribution-adjusted revenue accounting for fulfillment costs of various distribution channels

To make projections, our “pure” measurement of demand was calibrated to the real-world market. This included normalization to actual historical sales, and imposition of assumed constraints that will remain in the 2009-2010 market, ranging from projected adoption of required hardware to still-ongoing penetration of digital cable and broadband Internet, to imperfect consumer awareness.

Oliver Wyman

With more than 2,900 professionals in over 40 cities around the globe, Oliver Wyman is the leading management consulting firm that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, organizational transformation, and leadership development. Oliver Wyman's Media & Entertainment practice provides growth strategy, customer analytics, operational performance improvement, and M&A support services for studios, ISPs, cable companies, newspaper and magazine publishers, broadcasters, theme parks, pay-TV providers, and private equity firms. Oliver Wyman is part of Marsh & McLennan Companies [NYSE: MMC]. For more information, visit www.oliverwyman.com.

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This study is partly based on data from consumer research Oliver Wyman conducted with a studio client in the fourth quarter of 2007. Interpretations and industry-facing recommendations expressed here are solely those of Oliver Wyman's Media & Entertainment practice.

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