



The complexity of the video format wars, specifically that of access to streaming, makes one long for the relative simplicity of the transition from printed page to ebook. The difference being that in the ebook transition, content players (ereader, tablet, smartphone, or laptop) are relatively similar but differ in their usability or in what else they offer. With DVD/Blu-ray vs. streaming, we deal not only with the issue of production, housing, licensing, distribution, etc., but also with a sensitive live media (in streaming) that can be played on multiple platforms (tablets, PCs, Internet "smart" TVs and DVD players, smartphones, etc.) dependent upon a particular technological climate in order to operate properly, i.e., it must be wired and provide a proficient and stable bandwidth.

Streaming's main selling point is its accessibility and portability—potentially omniscient access to everything. Its downside is also its accessibility—being dependent upon a "stream" of consistent connectivity (and ample bandwidth). But it al-

ways comes down to cost. Streaming, at its economic center, is based upon perpetual cost—there are recurring subscription fees for the content provider(s) and a subscription for the Internet connection, with the result being it's not necessarily cheaper than the alternatives.

When the home video market was taking baby steps, the two budding formats—VHS and Betamax—grappled for dominance. Betamax (its name derived from combining the Latin beta meaning "greatness" with max being short for "maximum"), with its clearer resolution, was the superior technology, but Sony as the primary proponent took a proprietary stance in its development and sought to corner the market. Its primary competitor in VHS was JVC, but the latter decided to open source the technology and encourage competitors. From there, capitalism took over. It was Sony vs. the field, and the field won. A competitive market spurred growth and promoted healthy technological development.

Marketing and customer service again are playing large roles in our current technological format battle between DVD/Bluray (in the hard-copy camp) and streaming video (the "live" feed front). Note that this war somewhat has been imposed

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upon us by companies such as Netflix that have drawn lines in the sand between the media suggesting that it is one or the other. This stance reflects less of an actual ultimatum than a marketing ploy to impose a sense of urgency into the marketplace. Netflix's recent decision to split its disc and streaming services into two separate enterprises fell flat, and the company quickly reversed direction following consumer outcry and a plunge in its stock price.

For years, Netflix has been the only game in town, but with a blow to its consumer confidence, Netflix now faces a market ripe for consumer Goliaths like Amazon, iTunes, Google, or a new service to challenge its dominance—or even existence by offering identical services for less.

Coming, but not there yet

Streaming seems the likely future because quality is the loser to technology-prompted convenience and accessibility per mobile phones, tablets, notebooks, etc., which have all had their capacities raised by a more widely accessible web. But lack of substantial bandwidth prevents a higher universal quality stan-

dard, so streaming currently doesn't transmit in full HD 1080p. The dilemma then becomes movies that cry for the best possible display with a delivery method that can't quite perform.

In the moment—as that is where streaming excels—to the consumer, convenience may trump lack of quality, as it did with Betamax and VHS, but when you want to watch a movie, quality and performance reign. Still, the evolution to streaming is less about quality than it is about accessibility and the financial cost of distribution.

Streaming as a technological function isn't anything new (its current prominence is the result of the improved access to networks), with its creation as a way around the everpresent issue of bandwidth capacity limitations. It has always taken a long time to transfer memory-heavy media, and streaming was adapted during dial-up times as a way to watch video before (or while) it was being transferred.

The "new" owning?

For those concerned about what a cloud-centric future might bring, good news comes in further support of the substantiality of DVD/ Blu-ray media, with midyear sales figures showing that consumer preferences have shifted from buying to renting (for the first time since 2001) amid hard economic times. It is hard to argue with the economic attraction of Redbox's \$1 per day movie rental scheme, though while it is more expensive title by title than streaming for the high-volume customer, it does not include the cost of the Internet connection.

Libraries looking for an indirect validation for maintaining a DVD/Blu-ray collection (as if circ stats weren't enough) can find it in Sony Pictures' updated sales agreement with Redbox to rent its DVD/Blu-rays though 2014. Redbox is oddly addictive, and there is something appealing about using a vending/ video game-type machine. Library vendors have responded. 3M's Library Media Box, PIK—Public Information Kiosk, Inc., Brodart's Lending Library vending machine, and evanced's LibraryAnywhere not only serve as 24-hour pickup/drop-off boxes but also as satellite minibranches.

Creatively used, such vending machines may work as a lower-overhead successor to bookmobiles. These minibranches are an evolution of the brick-and-mortar model featuring an electronically "staffed" physical collection. Redbox stations, like library DVD/Blu-ray collections, are also one up on streaming and premium cable movie releases because new release DVD/Blu-ray-formatted films hit the street at least 30

days before streaming services.

What

STREAMING While its name somewhat misleadingly refers to the delivery method rather than the medium being delivered, streaming is considered an active or "live" continuous feed or transfer of data. The process of streaming came about out of necessity and not convenience. During the age of dial-up modems, it could take hours (or days) to transfer complete files owing to the limited bandwidth. Streaming evolved as a way to show or access parts of the file before it had been completely transferred.

BANDWIDTH The rate at which data is transferred is called bandwidth. If the Internet in simplistic terms can be thought of as a grouping of millions of computers connected by networks, bandwidth is the size (larger or smaller = faster or slower) of the connections among the computers. If the information can be considered water in a glass, bandwidth would be the size of the straw used to drink it. Low-quality video consumes less bandwidth (and transfers more quickly) than higher quality video.

"TRUE" HD Currently, 1080p (meaning 1080 lines of vertical resolution progressively scanned, or sequentially displayed) is considered "true" or full HD, while 720p is the next resolution step down to be still considered high definition. Until the country is wired with fiber optics or the technology cable capable of handling the data load HD puts on networks, consumers will have to put up with lower resolution video streaming.

A la carte entertainment

While we are trained to look for a dominant media delivery method, the present situation has affirmed that there is a time and a place for each one. An open and equal opportunity market share (balanced by each particular method) dictates that consumer "tastes" are driven by the à la carte marketplace.

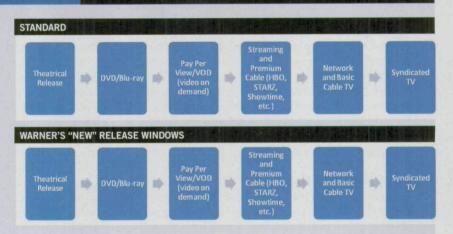
Certain delivery methods excel in certain scenarios, and they in turn influence which devices are used to access them. Viewers have gotten savvy. Taking a look at how patrons prefer to enjoy certain methods of entertainment perhaps makes sense of why DVD/Blu-ray has hung around and becomes integral to forecasting. Netflix and Hulu users trend toward different content types: 73 percent of Hulu users primarily watch TV shows compared to 11 percent of Netflix viewers. Conversely, 53 percent of Netflix subscribers use the service primarily for movies, while only nine percent of Hulu viewers do.

This stat really isn't about the service—Hulu mainly carries TV shows, while Netflix focuses on films-but rather the access methods that reflect how and where people use the services. Hulu users predominantly watch TV shows online where the half-hour format is ideal; longer and more special-effects-driven movies are watched on a TV (through Wii, connecting a computer to a TV, PlayStation 3, and Xbox, in that order).

Video Release Format Chain of Command

1 After a film enjoys its theatrical run, it will typically arrive on DVD/Blu-ray within three months.

- 2 30 days after DVD/Blu-ray release, it will go to pay per view/VOD
- 3 After 90 days, it goes to streaming and premium cable channels
- 4 Then between six and 12 months, on to network and basic cable TV
- 5 And, finally, syndicated TV



The Avatar Effect

As expected, overall home entertainment consumer spending dropped this year. While DVD sales fell, an unexpected bright spot came in the form of Blu-ray discs and players, which were up ten percent—signaling that Blu-ray's high-quality picture and lower-priced players encouraged comfort in the consumer's reception of the media. Homes with Blu-ray devices rose by two million in the second quarter to 31.6 million total as player prices fell below \$100. While online streaming sales were up 46 percent from last year, reaching \$1.6 billion, spending on subscription plans was still less than half of DVD and Blu-ray sales, which came in as the still dominant media at \$3.9 billion.

What is perhaps misleading about the percentage portion of these stats in relation to 2010 is that while they do generally reveal tech trends and reflect consumer tendency and confidence in particular formats, they also tend to be only as good as the content that is sold—enter the *Avatar* Effect. *Avatar* is the latest film to influence greatly (and possibly skew) consumer spending reports, as the all-time box office champ sold 12 million DVD/Blu-ray products in the second quarter of 2010 alone, demonstrating once again the immense effect studios and their films have on the economics of the entertainment industry.

Where do libraries fit in?

Libraries stand in sharp contrast with the retail model and market trending, as circulation statistics for DVD/Blu-ray continue to be extremely high—in many cases far superseding other materials—and account for a large representation of library budgets. In most cases, these numbers are at an all-time high—with libraries nationwide circulating over two million DVD/

Blu-ray discs a day! To this end, libraries are helping hold back the evolution of the media landscape. Will the library's inability to find a suitable entertainment-based streaming service contribute to its collapse? It's tempting to opine that it's all about dollars to collection development librarians who are rightfully discerning with the public's money and investment, but this is not fully realizing the context. It is less about finances than it is about buying an available and worthwhile product.

If there were a consistently performing, extensively cataloged (with mainstream and nonfiction titles)—not even necessarily cheap—service that patrons (in overwhelming majority) could access in a satisfying way at home or remotely, libraries would be on board in a flash—signing on individually or joining consortia. But the landscape isn't there yet for institutions or individuals, and so the conservative answer is to stick with DVD/Blu-ray. Just as ebooks signified an evolution of service rather than the demise of the library, there are too many library users not to find a model and, frankly, way too much money to be had by distributors for there not to be an outlet. Where there is a will for money, there will always be a way.

Furthermore, as ironic as it may appear given the current landscape, libraries represent stability to businesses. A secured three-year contract may not seem like forever, but for an economy in borderline recession where millions of people are worrying about their next meal, it can be a lifesaver. In this sense, libraries with a contract budget in perpetuity (however temporary) can serve as a catalyst for recovery not just for individuals but for industry as well.

Libraries, sitting somewhat on the sidelines as companies offer new and fun-sounding access services, are no doubt eager to take part—but it isn't time just yet. A library-friendly dis-



Blu-Ray + DVD + Digital Copy = Opportunity

You may have noticed that many Blu-ray titles now feature combination packages. For collection development librarians on a budget (as if an alternative exists), this is a true gift horse and chance to maintain and expand your DVD selection while also building Blu-ray holdings: literally, a two-for-one (the digital copies are less useful as they are often single license and could legally only be circulated if they were preloaded to a mobile movie-playing device to be checked out). With Blu-ray player sales growing and major studio support behind the three-for-one promotion, this investment is a good sign that Blu-ray might be around for a while. And with "free," what is there to lose?

DISTRIBUTING THE WEALTH: SOURCES FOR VIDEO PRODUCTS

DISTRIBUTOR	SPECIALTY	FORMATS/ PLATFORMS	NOTEWORTHY COLLECTIONS/NEWS
Acorn Media Group www.acornonline.com FREE	emphasis on British television and "mind, body, spirit programming"	DVD/Blu-ray, digital delivery	AcornTV featuring streaming of classics and new release TV series and features. Free and Premium subscriptions
Alexander Street Press Academic Video Online alexanderstreet.com/products/VAST.htm LIMITED FREE, PRIMARILY SUBSCRIPTION OR SINGLE PURCHASE	award winners, feature, doc, educational, newsreels, field recording, interviews, lectures, training videos, and exclusive primary footage	DVD/Blu-ray, streaming, digital delivery	BBC, PBS, Arthaus, CBS, Kino International, Ethnographic, Documentary Educational Resources, California Newsreel, Opus Arte, Cinema Guild, Pennabaker Hegedus Films, Filmakers Library, Psychotherapy.net
AVV Geeks www.avgeeks.com and The Prelinger Archive www.archive.org/details/prelinger FREE	feature, independent, documentary, nonfiction, short subject, art house, advertisement, music, religion, schlock, TV, public domain, newsreel, classroom films	DVD/Blu-ray, streaming	Oft critically acclaimed pop culture temple to AV geekdom—treasure trove of celluloid, etc., and historic ephemera. Including <i>Duck and Cover</i> and social hygiene classroom films
Europa Film Treasures www.europafilmtreasures.eu FREE	historic international cinema	streaming	80 historic films from 15 European countries— funded by the European Union and featuring works from institutions such as the British Film Institute, Filmoteca Española, Cineteca di Bologna, La Cinémathèque Française, and Filmarchiv Austria
Facts On File and Films Media Group– Access Video On Demand www.infobasepublishing.com/ StreamingPLLanding.aspx	independent, documentary, foreign, feature, music, theater, TV	DVD/Blu-ray, digital, on demand,	HDNet (home/theatrical same-day release), Academy Award-winning shorts films
Films Media Group www.films.com	eEducational, documentary, performance, theatrical, music	DVD/Blu-ray, digital delivery, on demand, webisodes	Films for the Humanities & Sciences, Cambridge Educational, Meridian Education, and Shopware
Hulu Premium www.hulu.com FREE (limited catalog – 420p) PREMIUM (back catalog and Criterion Collection – 720p)	primarily TV, more limited feature films and documentaries	streaming	Criterion Collection
Kino Lorber Edu www.kinolorberedu.com SUBSCRIPTION	independent, documentary, foreign, feature, classic, educational, National Film Registry, cult, avant garde, silent, LGBTQ, women directors	DVD/Blu-ray, streaming	Films from Kino International, Lorber Films, and Alive Mind Education—social justice and human rights, film studies, social studies, science and philosophy, religion and spirituality
Library Video Company www.libraryvideo.com www.safarimontage.com	educational for classrooms and libraries	DVD, VOD, Streaming	Schlessinger Media, Safari Montage, NASA
National Film Board of Canada www.nfb.ca FREE	independent, documentary, foreign, educational, feature, kids, avant garde, HD	streaming	Oscar nominees and winners, experimental and animation
National Geographic TV channel.nationalgeographic.com/channel FREE	documentary, TV	DVD/Blu-ray, streaming	National Geographic Channel programming + documentaries and specials
Naxos Video Library www.naxosvideolibrary.com SUBSCRIPTION	classical music performances, opera, ballet, live concerts and documentaries	DVD/Blu-ray, streaming	Performances by the world's greatest opera houses, ballet companies, orchestras, and artists
NOVA Beta www.pbs.org/wgbh/nova FREE	science-related, documentary	DVD/Blu-ray, streaming	Ancient worlds, biology, evolution, military, nature, physics+math, space+flight, tech+engineering
OverDrive overdrive.com/Resources/ MediaFormats/Video.aspx ACCESS CONTINGENT UPON OVERDRIVE SUBSCRIPTION	small collection of general interest titles	streaming	Image Entertainment films, PBS, classics, nonfiction, feature, travel
PBS Video www.pbs.org FREE	educational, instructional, documentary, music, news, PBS kids, theater	DVD/Blu-ray, streaming	Austin City Limits, American Experience, Frontline, Masterpiece, Antiques Roadshow
Snag Films www.snagfilms.com FREE	documentaries and features - art house, independent, music, and more	streaming	Offers the broadest collection of well-known independent movies online and for free—"films that entertain and inform, engage and inspire, satisfy every taste, encourage discovery and create community"
Swank Digital Campus www.swank.com/digitalCampus/index.html PAY/SUBSCRIPTION (TYPICALLY INSTITUTIONAL)	independent, documentary, foreign, feature, music, theater, educational	interactive classroom digital delivery—assigned movies are made virtually accessible to all students	Digital Campus shares Swank's Motion Pictures extensive feature film catalog and provides a digital way for instructors to enhance their curriculum
Warner Bros. Archive www.wbshop.com RENT OR BUY	feature films, classics, TV, musicals, kids, family	DVD/Blu-ray, streaming, digital delivery	vintage TV, cult classics, extensive music collection

NOTABLE VENDOR CATALOG COLLECTIONS NOT OFFERING STREAMING

Cinema Guild (www.cinemaguild.com)

Cinema Libre (www.cinemalibre.com)

Facets Multimedia (www.facets.org)

First Run Features (www.firstrunfeatures.com)

Hammer Films (www.hammerfilms.com)

Icarus Films (www.icarusfilms.com)

MPI Media Group (www.mpimedia.com)

New Yorker Films (www.newyorkerfilms.com)

Palisades Tartan (www.palisadestartan.com)

Shout Factory (www.shoutfactory.com)

Troma Entertainment (www.troma.com)

Zeitgeist Films (www.zeitgeistfilms.com)

Many major distribution and production companies are not offering their catalogs in streaming. Often the reason is that these collections are restorative editions, presentation-quality particular, or specially packaged productions (DVD extras) that producers feel deserve an ideal setting and treatment—since streaming typically transmits at a lesser quality 420p-720p or because they aren't or haven't found a suitable streaming service for their catalog. The notable exception being Criterion Collection, which is available via subscription with Hulu Premium, though it still only streams at 720p.

tribution model will come, and by that time many kinks will have been hammered out (conveniently availing room for all the new ones, naturally). Whether the future is in streaming or some à la carte style, the present is still in DVD/Blu-ray. For libraries, it's just the truth. Media circulation stats continue to rival any numbers Netflix and Redbox put up, so with a mind toward the next intersection, we just have to ride it out. In the meantime, we shouldn't feel as though we are offering a substandard product. While DVD/Blu-ray is not quite as new, it is a higher quality and more consistent performer.

The media crystal ball

At this point in the game, it is difficult to say what things will look like when a library-adaptable streaming vehicle comes around. It might resemble a subscription/contract-based content provider model similar to ebook delivery products such as 3M's Cloud Library, OverDrive's Media Council, or Baker & Taylor's Axis 360. Or it could be an individual license per title model—essentially the same purchasing method used in obtaining physical materials (you buy one title, you have one title available for checkout)—where a collection is built on an individual basis and either a library website-based player or a downloadable manager would be used to play the video.

Oversimplified, it will likely be determined by which

method will best suit the chain of command-will there be an intermediary providing and managing access, or will it be direct through the movie studios—and still deliver the biggest bucks to the filmmakers. In this light, it is likely to be via a subscription-based content catalog provider (such as 3M or Over-Drive's ebook and e-audiobook services) because the studio doesn't

just want money once but, if at all possible, at recurring intervals and preferably in perpetuity. DVDs were a natural for this because while they theoretically could play at the same quality for thousands of years, in practicality they are prone to breakdown through cracking or scratching, or by "going missing," which for libraries necessitates replacement.

Librarians familiar with the HarperCollins 26-circ life span for ebooks won't find this surprising but, unfortunately, might see how it translates to the world of streaming as well.

Factors to consider

ECONOMICS Libraries provide "free" access to content—it is less about method (i.e., DVD, streaming, VHS) than content access. Playback devices, be they media-specific players, tablets, PCs, etc., are one-time purchases that most might, however grudgingly, undertake, but the perpetual cost of entertainment content (either purchased by title or via subscription, they represent a continual cost) is even more cumbersome. As there is no fail-safe subscription and distribution method that the library can get behind and deliver to its patrons, for the time being libraries will help keep DVDs running. Think about the food chain that libraries contribute to: the revenue that libraries represent for B&T, Midwest Tape, BWI, and Amazon.

PERFORMANCE The jury is out on who, when it comes to format acceptance, is more conservative: the library or its patrons. On one side can be called libraries "being responsible" with patrons' investment and money, but on the other side it also tends to make libraries slower to accept or embrace certain methodologies and technologies. In these terms, one side of the coin says "reluctant" while the other says "tested and proven," as the method of delivery and performance return with DVD/ Blu-ray is by far the most consistent, least condition dependent, straightforwardly accessible (with nary a learning curve—at least in comparison to streaming) and, thus, the safest.

Most, if not all, streaming packages involve the vendor's download manager and a learning curve about access.

STREAMING WILL LIKELY BE **DETERMINED BY WHICH METHOD** WILL BEST SUIT THE CHAIN OF COMMAND AND STILL DELIVER THE RIGGEST BUCKS TO THE FILMMAKERS

With so many sociocultural and economic variables at play, the video future will be different depending on the context. Different strokes for different folks as it were. In general terms, the path of least resistance for most people will be DVD/ Blu-ray primarily because it is the most direct, tried-and-true method, encompassing the fewest variables. Streaming, with its layers of subscriptions and tech requirements, represents red tape for the economically or technologically unconfident patron. Our idea of content delivery is changing and what it ends up as may alter more the way we decorate our homes and outfit our physical libraries than how we watch Breaking Bad. Still, there is much to hammer out before we scrap physical formats altogether.

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