

# DIGITAL AND TANGIBLE: HOW DVDS ARE IMPACTING INDEPENDENT MEDIA

by Neil Sieling

*The independent media field has been following with interest and perhaps some trepidation the rise of the DVD, and trying to image the affect it will have on the production and distribution of independent films and videos. Of course, each new technological innovation for the production and/or distribution of media (videocassettes, interactive CD-ROMs, the Internet, DVDs) carries the promise of helping independent media makers get their work out to the world. Some of the promises of those older technologies were never realized (e.g. the educational market suffered during the transition from film to VHS tapes). Certainly, some of the promise of DVD will not play out in the very real, very difficult world of independent media distribution. However, DVD has definitely made itself a force in the field. Now seems a good moment to reflect on the changes that came with DVD and what it portends for the future for independent media makers, producers and distributors. — NVR*

## Executive Summary

For all of DVD's many virtues, it is neither a market, nor a field nor a movement by itself. Rather, it is a compendium of formats within a new generation of optical disc storage technology. DVD needs to be examined in relation to other media, social and economic systems in order to fully understand its complexity. This study will provide a snapshot of where DVD and related technologies are going, and the effect that will have on their producers, distributors and audiences.

The independent media arts field has always wrestled with how to make the best use of transitional technologies, whose development and deployment almost always emanate from sources outside of the field. While the independent media field often doesn't have an effect on the initial deployment of new technologies, much can be done to imbue those new technologies with the values and insights of independent media culture. One argument in this study will be the importance of creating an informed, interdependent and sustainable movement to help makers, distributors and audiences adjust to the latest wave of new technologies. Rather than using its considerable creative capacity merely to react to the latest round of transitional technologies and aiming only to hold its ground, the field needs to consider new partnerships. Digital *interdependence* needs to succeed *independence* as a primary motivator in the field in order to lay the groundwork for a better future.

For example, a great portion of independent media's value has been the quality of the work produced and the relationships forged between makers and audiences. This "relationship capital," so integral to independent media culture, can be brought to bear using some of the new digital tools. The techniques for finding and developing audiences and a perceived sense of "us" that have been employed by "old media" practitioners can inform the development of communities with new media hardware and software.

This paper will first look at the nuts and bolts of DVD technology and its various iterations. It will also explore the economics of DVD, from why companies are interested in distributing DVD to why consumers (both individual and institutional) are interested in acquiring them. Although the DVD has become the consumer media format of choice, many independent media producers and distributors are struggling to determine whether DVD's promise(s) will be right for their films and videos. What are the technical considerations for making a DVD? What are the costs? Does an enhanced DVD

mean enhanced sales? The digital terrain is vast and almost everyone is missing one or more pieces of the puzzle. Examining both the technical and economic sides of DVD culture should help independent media makers, distributors and conduits to audiences (such as public libraries) make more informed distribution and purchasing decisions.

This study will also look at the social forces driving DVD culture and offer recommendations as to how DVD culture might achieve its full potential. Throughout, we will use case studies and detailed sidebars to illustrate some of the potential and the difficulties of DVD. Above all, this study examines the real potential for the social, economic and technological changes in the transition to DVD to help independent media get ahead instead of just making do.

## The Technology

Although DVDs have rapidly supplanted VHS as the choice of consumers, what do independent media makers, distributors and audiences need to know about the technology?

### The Basics

Simply put, the Digital Video Disk is essentially a high-capacity CD that can hold any digital data, including text, music and movie files. DVDs have specialized components and commands that only a DVD player can read — menus for navigation, chapters and anti-piracy capabilities. DVDs come in various formats:

- DVD is a read-only format
- DVD-R or DVD+R allow for one-time "writing" or copying onto the disk
- DVD-RW or DVD+RW allow multiple writings onto the disk.

Despite the rapid transition to DVD, reliable information about the DVD and competing platforms is often contradictory or colored by the particular needs of companies within DVD culture or in competing industries. Thankfully, Jim Taylor, Chief of DVD Technology and General Manager of the Advanced Technology Group at Sonic Solutions, the leading developer of DVD and CD creation software, has published a book and created a website that demystify DVD culture. The website — [www.dvddemystified.com](http://www.dvddemystified.com) — is a generous public service to the field. Its extensive set of web links, entitled DVD FAQ and found at [www.dvddemystified.com/dvdfaq.html](http://www.dvddemystified.com/dvdfaq.html) is an invaluable reference guide, providing a counter-balance to the often one-dimensional information offered by companies and

new technologies competing for attention and business. Taylor's texts will be referred to often in this study to frame the basic facts and figures around DVD and to debunk more than a few suppositions in the process.

### The Questions of Quality and Storage Space

Any discussion of DVD technology automatically leads to questions of quality and storage space. What is the relative quality of DVD to VHS? How much more can you store on a DVD compared to a VHS? And which high-definition DVD standard (HD-DVD or Blu-Ray) will win in the end?

There are many differing opinions about whether DVD really is better than VHS, and for what reasons or in what contexts. *Sidebar #1: Quality Issues for DVDs* outlines many of the issues surrounding that discussion. The battle between the opposing but incompatible high-definition DVD standards has been ongoing, with little sign of letting up in the near future. Both HD-DVD and Blu-Ray formats have far larger storage capacity than existing DVDs. *Sidebar #2: HD-DVD vs. Blu-Ray: Not As Simple As VHS Versus Betamax* provides some detail about the two formats.

### Where to Go for More Information (and Why Is It Important to Know More?)

While there is ample "can do" energy in the field, a lot of time and effort are being wasted because of a lack of information about the digital terrain and its possibilities. Very few people and groups can adequately handle the wide range of skills and knowledge sets needed to navigate this terrain. Additionally, not enough people know where to go to find the best information and analyses.

There will always be disagreement about certain technological aspects of DVD. However, there are some well-accepted compendia of useful information on the technical side of DVD culture. The gap in finding and understanding useful information makes the independent field less informed and less competitive with other, larger commercial media entities. Having a solid base of information could help the field with strategizing and moving more quickly to be competitive in the marketplace.

#### SIDEBAR #1: QUALITY ISSUES FOR DVD

There are many differing opinions about the relative quality of DVD and VHS. As can be imagined, those distributors or institutional consumers (such as libraries) that are most tied to their VHS market or holdings had the most negative things to say about DVD, while those groups leading the way for the transition to DVD were the most dismissive of the future for VHS. Many preferred DVD to VHS because of the quality of the image. Others feel that the menus and chapters in DVDs represent a significant advantage. Still others talk about the durability and smaller size of DVD vs. VHS. Finally, observers talked about the quality issues between DVD and DVD-R. Clearly, there is room for improvement in DVD technology.

##### DVD vs. VHS

Jim Taylor, Chief of DVD Technology and General Manager of the Advanced Technology Group at Sonic Solutions, the leading developer of DVD and CD creation software, explains why he believes DVD is superior to VHS: "The primary advantages of DVD are video quality, surround sound, and extra features. In addition, DVD will not degrade with age or after many playings like videotape will (which is an advantage for parents with kids who watch Disney videos twice a week!). This is the same thing that makes CDs more collectable than cassette tapes. Did I mention video quality? The better your TV, the bigger the difference in picture quality between VHS and DVD. If none of this matters to you, then VHS probably is good enough."

Eventually, DVD will replace VHS. As Taylor notes: "DVDs have many advantages over tapes, such as no rewinding, quick access to any part of a recording, and fundamentally lower technology cost for hardware and disc production."

Most observers concur with Taylor's opinions. Bob Bowen of CineMagnetics, a company that replicates DVDs, says that "DVD is a very strong product. The only way to destroy it is with scissors. VHS machines can create the tape. I've never had a problem with DVDs replicated from a glass master." Nancy Kranich, the former head of the American Library

Association and a senior manager at the New York University Library, said: "DVDs are fabulous for libraries. They are less destructible than videotape, which is awful."

Gary Handman, Head of Media Resources at UC-Berkley, feels that VHS tapes are preferable in high circulation situations such as his academic library, because DVDs can get fingerprints and cracks near the edges. Taylor agreed that this may be true in high circulation situations, but counters that the availability of less expensive disc cleaning and polishing equipment mitigates this concern.

Although DVD's ability to provide menus and chapters is seen as an advantage, many noted the occasional problems with authoring, particularly on personal computers. Poor video and audio compression on DVD also raise quality issues. Emily Russo, the Co-President of Zeitgeist Films said that more than 50 percent of their submissions come in on DVD and that many have bad authoring, including skipping or lack of chapters, making it hard to watch the whole DVD. DVDs burned from a computer can be especially buggy.

##### DVD vs. DVD-R

There are also problems with DVD-R, the cheaper alternative to traditional DVDs made from glass plates. Milos Stehlik, Executive Director of the distributor and exhibitor Facets Multimedia, has experienced quality problems with both DVD and DVD-R. He noted that while Facets does make DVD-R, they aren't a solution quality-wise. Stehlik also expressed concerns about ensuring that DVDs are authored in a way that plays equally well on all players. (For a summary on DVD-Rs, see Jim Taylor's DVD FAQ text, sections 4.3 and 4.3.2 [www.dvddemystified.com/dvdfaq.html#4.3](http://www.dvddemystified.com/dvdfaq.html#4.3)) Taylor notes that the compatibility of DVD-R, DVD-RW, DVD+RW and DVD+R discs in DVD players has gone up more than 90 percent in all cases within the past year from previous levels of about 80-85 percent. The compatibility level will only go higher as new DVD players are absorbed into the market, making DVD-Rs less of a technical problem.

The basic reason for making DVD-Rs is the need to produce DVDs within a short timeframe or for a very short run. Unfortunately, this has resulted in a plethora of DVD-Rs released without the quality control provided by a more professional facility replicating DVDs from a glass master. The DVD-R problem doesn't affect companies that replicate larger runs of DVDs. For example, Plexifilm, a relative newcomer to the ranks of media distribution focused on the sell-through market, and only replicates DVDs from a glass master. Gary Hustwit, the CEO of Plexifilm, said, "If it's not worth pressing 3,000, then we don't do it."

A significant issue in DVD culture is the minimum number of DVDs to be replicated from a glass master. Replicating 1,000 or less units is too expensive for many smaller distributors, much less individual media makers. No one predicts that the 1,000 minimum would come down anytime in the near future. While 500 units is the smallest run for DVDs replicated from a glass master at CineMagnetics, making 500 DVDs is more expensive per unit than making 1,000, because the charge for the glass master is pro-rated into the quantity of the run, so the per unit cost is higher.

Bob Bowen pointed out that once the order size gets to 250-300 DVDs, it becomes less expensive to replicate 1,000 DVDs. He noted that larger companies like CineMagnetics can offer a helpful solution to the dilemma of quantity and pricing. If someone wants to package 350 DVDs, they can do a run of 1,000 but only pay for the packaging for the 350, keeping the remaining DVDs until needed. That way, the client doesn't pay the higher upfront packaging costs but still gets the benefit of the lower per unit charge from the run of 1,000 DVDs.

Many agree that as technology advances and compatibility problems become less of an issue, smaller distributors and individual film and videomakers will have more confidence in runs of DVD-Rs. This bodes well for the future proliferation of DVDs in the independent media field. ■

## SIDEBAR #2: HD-DVD VS. BLU-RAY: NOT AS SIMPLE AS VHS VERSUS BETAMAX

The battles between the opposing, incompatible high-definition DVD standards of HD-DVD and Blu-Ray has taken up the better part of the last several months. Each has its promoters and detractors and each may promise more than they actually deliver.

HD-DVD is a digital optical media format and is one of the specifications being proposed as the standard for high-definition DVD. HD-DVD is promoted by Toshiba, NEC and Sanyo, and backed by four major film studios: Warner Brothers Studios, Paramount Pictures, Universal Pictures and New Line Cinema. The competing format, Blu-ray, comes from a group of companies led by Sony and including Dell, Hewlett-Packard, Hitachi, LG Electronics, Matsushita Electric Industrial (Panasonic), Mitsubishi Electric, Philips Electronics, Pioneer Electronics, Samsung Electronics, Sharp, TDK and Thomson Multimedia. Disney and its Buena Vista Home Entertainment Division announced they would release Blu-ray-compatible DVDs, complicating the picture because most of the Hollywood film studios had already declared for HD-DVD.

The good news is that both competing formats have far larger storage capacity than existing DVD. The Blu-ray disk holds about six times the capacity of existing DVDs, while Toshiba's HD DVD can hold about four times as much as standard DVDs. Both formats provide far sharper pictures in addition to the vastly increased storage space — a fact that the

studios intend to use to provide interactive capabilities that will allow viewers to buy merchandise, play games and call up bonus material even while the movie is being shown.

That said, a few observers have noted that the greatly increased storage space still pales beside the step from videocassette to DVD. For example, Gerard Catapano, the manager of electronics testing at Consumer Reports magazine, says neither technology offers owners of high-definition television sets the same improvement in image quality that DVD boasts in comparison with videocassettes. "That's night and day," he said in a recent article.

The interest shown by Hollywood studios in the HD-DVD format seems to come down to cost: HD-DVD media will be less expensive to manufacture than Blu-ray discs. The press has been full of comparisons to the past battles between the dueling VHS and Betamax videotape formats. The comparison is easy to make, as Sony was involved in both battles, but the situation isn't the same this time. While billions of dollars in potential sales hang in the balance for the winner, the Hollywood studios aren't calling the tune as they did in the earlier battle.

Paul Boutin ably described the new terrain in an article in Slate: "The good news is that if HD-DVD does turn out to be a low-capacity sham, Hollywood probably won't be able to force it down our throats. DVDs aren't just for movies anymore: Whichever

disk wins out will almost certainly become the standard for new computers, game consoles, and other gadgets, just as CD and DVD drives did. It's unlikely that computer users — or computer manufacturers — will settle for a medium that stores 30 gigs of data rather than 200 because it saves Warner Bros. a little money. No matter which side wins, this format war isn't going to change how we live. The VCR upended the relationship between video producers and consumers, who could suddenly watch what they wanted, whenever they felt like it. All HD-DVD and Blu-ray do is pack more video onto an existing medium at a time when we're discovering the joys of broadband connections, downloadable video, and hard drives big enough to hold a small movie library. If Sony, Toshiba, and the movie studios go to war, they might find that by the time it's over, we won't care about shiny silver disks at all."

The HD-DVD and Blu-Ray camps have recently announced effort to effect a truce rather than prolong a debilitating war. This positive development appears to be more about cutting losses and getting the discs to market before online and wireless delivery systems gain a competitive edge. Per Paul Boutin's comments above, the move smacks more of expediency than insight as a solution should have been reached long ago. ■

Bob Bowen of CineMagnetics, one of the leading companies dealing with the duplication and replication of videotapes and DVDs, noted that "Makers often don't have the conceptual framework to deal properly with DVDs. A lot of education is needed to get to where they can even ask for what they really need." CineMagnetics receives a lot of business from first-timers and consequently has added a great deal of introductory material, including specifications and templates, to their website ([www.cinemagnetics.com](http://www.cinemagnetics.com)) to educate clients and streamline the process. By educating potential customers, CineMagnetics performs a valuable service to the media arts field.

The idea of foregrounding education as a major need in the independent media arts field lacks the glamour and flair of other ventures in the digital arts. Carl Goodman, Curator of Digital Media at the American Museum of the Moving Image (AMMI), has pushed for the seemingly mundane idea of producing "operator manuals" on multiple iterations of the digital domain that might then be available to the whole field. For example, there could be dozens of PDF files on the standards and practices of distribution in the digital age, how to navigate and negotiate between particular skill sets, how to connect work to new and increasingly diverse audiences, compendia of reference texts on the histories of the field, etc. Such texts could be done at a quicker pace and also organized and disseminated in a way that could have more impact at a broader level.

Unfortunately, disseminating useful texts and information is only one part of the battle. Audiences are often behind the learning curve in some ways and ahead of it in others in terms of being equipped with new media delivery gear. The same can be said of creators and producers of independent media. Once they feel that they've gotten a handle on the technology involved

with DVD, how do they analyze the economics of producing and distributing DVDs?

### The Economics

A sign of the increasing proliferation and dominance of DVD is that they have supplanted videotapes on weekly rental charts. Sales of DVDs jumped from 5.5 million copies in 1997 to 685 million in 2004. The steadily dropping price of DVD players (from more than \$500 to around \$100) and of DVDs themselves account for much of this proliferation. DVDs are big business, hence the exponential growth in those interested in serving this burgeoning market, including companies and divisions of larger companies such as Amazon and CustomFlix. This section will look at the marketplace for independent media and at the economics driving the DVD market: Is the market for independent media on DVD shifting as rapidly as that of commercial media on DVD? What does all of this mean for the bottom line of independent media distributors? Are there viable options for distribution beyond the more traditional methods of institutional sales, television broadcast, etc.? To answer some of these questions, it will be useful to look at an overview of the market for independent media in terms of who is buying, what they're willing to pay, how they buy and the impact of auxiliary markets (such as television) on acquisitions.

If the future is DVD, then what happens to the past of VHS? No discussion of the economics of DVD technology would be complete without a look at the costs of transferring to DVD for those who acquire and those who distribute independent media.

## The Market for Independent Media

A large portion of independent media is sold to the educational/institutional market — universities, libraries, museums and other institutions. Libraries have long had a strong connection to independent media culture. Independent media makers and librarians often share a common passion for useful information and public engagement intending to take wider audiences on interesting journeys. Librarians, especially institutional librarians, have also been a financial mainstay for independent media producers and distributors for decades, from the days of 16mm films to VHS and now DVD. There is still a lot of strength in this relationship, but there are also new pressures with any new transitional technologies and this is certainly true for the transition to DVD. As will be explored below, the transition to DVD not only affects future purchases for institutional consumers but the existing holdings of (and thus access to) videotapes.

One of the strengths of the relationship with libraries is the librarians themselves. Gary Handman, Head of Media Resources at UC-Berkeley and the convener of the VideoLib

listserve and discussion group, spoke to the importance of having a sharp, committed media librarian. Someone in each library needs to be the trusted guide to the available media materials, as well as being the hub for acquisitions work. If not, media falls off the library's radar. Unfortunately, it has become harder for libraries, particularly public libraries, to create or even maintain staffing levels for media librarians. Milos Stehlik, Executive Director of Facets Multimedia, said: "The more than 13,000 public libraries are the great hope and frustrating tragedy of American independent film. Libraries get popular titles that drive circulation. There are some great librarians, but not enough of them." Jonathan Miller, President of First Run/Icarus noted with fewer centralized gatekeepers, it can be harder to make sales in some ways. The upside, however, is that there are more people to sell to: media librarians, subject area specialists, bibliographies collection development staff, general faculty and centralized media buyers, with the latter going down in numbers and authority.

### Price Points

Independent media distribution is a volatile business, with many

### CASE STUDIES: FILMMAKERS WHO'VE MADE ENHANCED DVD

To enhance DVD or not to enhance DVD? That is the question facing many film and videomakers who are weighing the costs and benefits of adding extra elements to their DVDs. A bottom line-based, cost-benefit analysis to such additions can be difficult to assess. Those companies and filmmakers that can afford to add value via enhancements see the return as a combination of providing their audience with quality work and increasing sales. Those groups that can't afford enhancements and/or who need subsidies to do so, are also correct in assuming that the enhancements may not prove fruitful in advancing their sales in what is already a niche marketplace. Hopefully the following case studies can provide a look at the motivations, hard work and results of making enhanced DVDs.

#### Stories from the War on Homosexuality: The Arthur Dong Collection, Vol. 1

Arthur Dong, an award-winning filmmaker, has been making and self-distributing documentaries for more than 20 years. In 2003, he released a boxed set of three digitally re-mastered DVDs of his documentaries *Coming Out Under Fire* (1994), *Family Fundamentals* (2002) and *Licensed to Kill* (1997). His decision to do so came out of his deep commitment to the issues raised in the programs. Too, as a self-distributor, he notes "The long-term picture is that my films are my social security. They are evergreen and will be a way for me to care of myself in the future."

Dong worked with a DVD producer and an assistant to add 4 hours of additional material and bonus features, including more than 2 hours of previously unreleased footage, and viewer guides for each title. The project took six months of work, two months for each title. In addition to creating the DVDs, the 45-page study guide for one film took 2 or 3 months, with the extra time coming from working with scholars and community leaders. Working with graphic artists on the design and the printing also added time and expenses. He paid people a fair wage,

given his own desire to be treated fairly as an independent maker.

The verdict? Dong says it was worth it, if for no other reason than to give these films a renewed life and ultimately more staying power in the marketplace. Often used as points of departure for discussions on homosexual issues, the added materials have renewed interest in the older titles in educational and non-profit settings. The sales figures for Dong's programs break down to 14 percent wholesale; 42 percent educational and 42 percent home video. He notes that universities have been willing to pay the full price.

The quality of Arthur Dong's DVD works and his conscientious commitment to excellent work and respectful treatment of professional colleagues is exemplary. Dong has leveraged his fine body of documentaries and ability and talents to obtain multiple sources of support in order to create the DVDs. While the DVD release brought in new sales (including some re-sales to those who already had VHS copies of the tapes), his motivation was more driven by an impulse to share expanded knowledge about the issues raised in the film.

#### The Stone Reader – Three Different DVD Releases

*The Stone Reader* is a documentary by Mark Moscovitz in which he explores why a favorite book, *The Stones of Summer*, went out of print. Given the subject matter — a lost book — Moscovitz and his partner were able to get Barnes and Noble to publish the DVD with the B&N branding. Barnes and Noble had 9,000-10,000 units in stores within several weeks, several months before New Yorker Films released the two-disk set. Because Moscovitz and a partner handled the Barnes & Noble deal by themselves, they profited from 60-75 percent of the gross.

Moscovitz handled the technical side of the DVD authoring — menus, duplication and delivery — after the Barnes & Noble deal was made. Barnes & Noble

bought 12,000 units and gave store managers discretion on the pricing. While the release was a major success, many Barnes & Noble stores sold out of DVDs, and communications weren't sharp enough to replace them as some stock sat on warehouse shelves.

The New Yorker Films deal closed around the time that the Barnes & Noble DVDs hit the shelves. Mark wanted a two-disk DVD with extra elements, which New Yorker Films resisted but ultimately agreed to, as well as to allowing Moscovitz to produce a three-disk set on his own. José Lopez of New Yorker Films agreed to run the New Yorker edition close to the Barnes & Noble release, feeling that the Barnes & Noble presence helped, not hindered, building *The Stone Reader's* presence in the marketplace. The New Yorker DVDs were produced with heavy supervision by the filmmaker.

The three-disk DVD created by Moscovitz and his associates included a wealth of materials, such as interviews with the editor of *The Stone Reader* novel, and assorted literary reviewers and film critics. It also included two in-depth updates on *Stone Reader* author Dow Mossman and more lost books from the film's theatrical tour. The print publication took a lot of time, energy and money, and licensing clips was also a large time and money investment, with a WNET clip being the most expensive element. Moscovitz noted that it was expensive to include all the extras, but that he wanted "to do something great."

When asked why he didn't go with an institutional market release before going to home video, Moscovitz said that people urged him not to go home video route. For him, "The main point of the film was to get Dow [Mossman]'s book published." This was a major ethical point for Moscovitz, who wanted to do right by the author of *The Stones of Summer*. This decision illustrated Moscovitz's feeling that a maker needs to decide upon the hierarchy of what he/she wants. Is it making money, wanting the movie to be seen, your reputation or achieving a social goal? ■

organizations unable to stay in business. Debbie Zimmerman, Executive Director of Women Make Movies, pointed out that part of the problem is that, despite the “independent media” hype, there really isn’t a market for “independent film” per se. Rather, consumers (institutional and otherwise) are interested in *subjects*, many of which are only addressed by independent media makers. Therefore, only occasionally does an independent program hit a high enough level of sales to be classified as commercially successful.

The discussions of DVD culture bring back histories and memory of old struggles fought over the deployment of VHS technologies. At that time, the educational/institutional market was very wary of what was then the major transitional technology. Originally, videocassettes held the promise of lower prices stimulating an exponential increase in sales to new users equipped with an increasing numbers of VCRs. Unfortunately, this promise didn’t bear fruit, with many independent distributors unable to remain profitable once institutions stopped purchasing or renting film (16mm or 35mm) and moved to video.

The deployment of DVD, even more so than VHS, raises comparable questions on the gap between the price points for the educational/institutional market and the home video market. Many distributors and the independent makers they serve depend upon the higher prices institutions are willing and able to pay for crucial revenue. However, the cheaper cost of producing DVDs puts additional pressure on distributors to reconsider their higher prices for institutions. Seymour Wishman, the President of First Run Features, said that they receive pressure from librarians paying a \$400 institutional price, but then seeing something available for home video for \$19.95. Gary Handman also noted the downward movement of price points in public libraries, saying: “If a distributor or maker can find a public library willing to pay more than \$150 for a program, then they’re doing well.”

Despite pressures on distributors to lower price points for the institutional/educational market, no major changes will occur right away. No matter how inevitable changes in price may be, institutional buyers understand that the higher prices help keep independent media culture going, and thereby ensures a flow of quality programming into the future.

Many nonprofit distributors adjust their release pattern accordingly to allow for a solid window for the higher prices of the institutional market to take hold before doing a home video release. As long as demand continues, the key players in the institutional market indicate that prices will stay comparatively high. Jonathan Miller of First Run/Icarus and Larry Daressa of distributor California Newsreel each indicated that lowering prices wouldn’t boost sales, and media buyer Gary Handman concurred. Miller reported that their institutional sales were increasing, most likely due to the quality and relevance of their titles and successful marketing efforts. However, Eddie Wong, Executive Director of the National Asian American Telecommunications Association (NAATA), said that sales revenue decreased 35 percent in 2004, which he attributed to diminished demand from the institutional market, and cuts in media funds.

An interesting detail: Peter Wintonick, the Montreal-based documentary producer (*Manufacturing Consent* and others), noted that price points are not as high in Canada as in United States. Institutional pricing, not as prevalent in Canada, is generally less expensive. For example, a title costing \$500 in the American institutional market might cost only \$79 in Canada. Kim Tomczak, Co-Director of Toronto-based distributor V-tape, had a different stance. V-tape still differentiates between institutional sales and educational and individual. To add to this tiered approach, many artists want them to offer limited edition DVDs at even higher rates. That said, the market for V-tape programs overlaps some with the art video holdings of American distributors like Electronic Arts Intermix, which can still charge a lot because of the arts context and demand from buyer/collectors.

The area of enhanced DVDs or DVDs with additional materials is a major area of interest with the independent media community of filmmakers, distributors, libraries and audiences. There was a wide range of opinions on the real value of enhanced DVDs and whether or not they met a cost/benefits analysis. A discussion of the pros and cons can be found in *Sidebar #3: DVD Enhancements and Add-Ons: Are They Worth It?* Additionally, readers may find it instructive to look at the case studies of two filmmakers — Arthur Dong and Mark Moscovitz — who have produced enhanced DVDs of their documentaries.

### **SIDEBAR #3: DVD ENHANCEMENTS AND ADD-ONS: ARE THEY WORTH IT?**

Many independent filmmakers, particularly documentarians, are exploring the possibilities of enhanced DVDs or DVDs with additional materials. Of course, a major concern for filmmakers is cost: who’s going to pay for the work involved in incorporating the additional materials? And, of course, are consumers willing to pay more for an enhanced DVD? The question of the real value of enhanced DVDs and whether or not they can meet a cost-benefits analysis elicited widely divergent responses, partly predicated on the extent of the enhancements. For the purposes of this sidebar, calling something an “enhanced DVD” will be more like the “full-blown range of a medley of features” — per Bowen’s description below — and not the bare-bones versions with chapter stops and little else.

Bob Bowen of Cinemagnetics spoke about the basic options for enhancement:

People come in with a wide range of source material. Multiple source materials and additional elements, require additional time, which adds to the cost. Most clients don’t overdo the process, opting instead for more straightforward navigation. CineMagnetics offers three basic encoding options. One is basic, with no additions such as chapter stops. Another is a full-blown range of features. The third is a combination of basic navigation, with modest additions, such as up to 10 chapter stops and a single-page menu. Users generally do want to see chapter points. Most are not that

interested in supplemental material, except for closed captioning and possibly foreign language versions. My impression is that because DVD capabilities are so new to them and the market is somewhat immature, it will take time for expectations to change.

The answer to the cost-benefits analysis question is not simple. When pressed, most respondents said that on a strictly financial basis, few enhanced DVDs would be justified by audience demand that translates into a willingness to pay for the extra costs of creating and manufacturing the enhanced DVD.*(cont.)*

Sidebar #3 (cont.)

Exceptions to this were more specialized markets like art film and other areas where collectors had the requisite “must have, will pay” motivation. Some social issue media programs certainly benefited from having additional source material and background information. Bart Weiss, Director of the Dallas Film and Video Festival, spoke to this when he answered the question on whether add-ons work by saying, “If the intent is pure money, then it isn’t cost effective. But indies are different, and assume that people want to learn more about the subject.”

Independent media culture is particularly well tuned to the idea of enhancements and other additional context for media programs. The motivations are strong for filmmakers to make enhanced versions of their films and video, even if they won’t necessarily make money. This gap between a hard bottom-line and the aspiration to bring to audiences a fuller, truer portrait of a subject is much of what defines independent media and differentiates it from other, more commercial media. The value of enhancements then is somewhat relative. The paradigm of a maker wanting to communicate something that an audience may or may not want is a familiar pattern in independent media culture. Does creating an enhanced version of a film let audiences in on a special trove of interesting materials? Or is it reflective of the maker’s inability to fully edit a work or track audience preferences — the DVD equivalent of vanity publishing?

Some observers feel that the Internet is the ideal place for additional materials, rather than an enhanced DVD. Media producer and analyst Alyce Myatt feels that audiences should have a choice — she objects to paying for additional material if you don’t necessarily want more. She felt that viewers could encounter the story on DVD and then go to the web for more information. A password model for one or more plays on the web might provide some revenue, while giving audiences a choice to do so.

Steve Bartz, Project Director of Active Voice, a company specializing in outreach work that extends the reach of television projects, said they make great use of the net for supplementary materials when the budgets don’t allow for putting the materials on DVD. He built an electronic toolkit that lowered printing costs and made materials available on PDF files via the Internet. Larry Daressa of California Newsreel also said that they can only manage enhancements when they’re subsidized and that their supplementary materials are all on the web.

The question of the real drawing power of enhanced DVD brought out a variety of opinions. Some, like Debbie Zimmerman of Women Make Movies, see enhanced DVD as moving people to become buyers instead of renters. She also cited Docurama’s Steve Savage as saying that you have to offer expanded DVDs to motivate people to go to video stores to buy them. Bart Weiss agreed to some extent, but noted that lower price points and a new ethos of collecting instead of renting lead people to buy DVDs — with or without enhancements. Milos Stehlik of Facets Multimedia echoed the move to buying: “The DVD [is] more collectible, and DVD culture becomes a buying, not a renting, phenomenon. It’s closer to buying a book.” He recalled that bookstores helped sell DVD formats in the early years, with companies like Blockbuster losing out because they followed a rental model.

Emily Russo of Zeitgeist says that they do a lot of enhanced work. Their DVDs are high-quality, with lots of background material. Regarding a cost/benefit analysis, Zeitgeist assumes that their enhanced DVDs will last a longer time and have archival potential. Filmmaker Peter Wintonick spoke to this, saying “I liked the experience of doing the *Manufacturing Consent* DVD with Zeitgeist Films. I consulted on the process and put in some extra features. It was expensive, with a cost of about \$10,000, but certainly worth it. And this was after we had tons of sales on VHS. The DVD release gave it a second life...and good royalty checks.”

Enhanced DVD has great potential for older programs, giving them a renewed life — provided, however, that the time, cost and availability of the materials are not prohibitive. Eddie Wong of NAATA recounted how Spencer Nakasako re-interviewed the subjects of his earlier programs *Kelly Loves Tony* and *a.k.a. Don Bonus* for the DVD releases. This strategy works if it is warranted by the quality of the original and the subsequent interview. Another example is the *Styles Wars* DVD released by Plexifilm. The project was massive, with four additional hours of material, 300 menu screens and an equal amount of video clips. Although the most ambitious and complex project that Plexifilm has done, they felt it was worth it — certainly, selling 40,000 copies helps. And they’ve had no small amount of satisfaction from seeing how an equivalent release, the *Wild Style* DVD put out by Rhino, a far larger company, did very poorly, selling about 8,000 titles. To Plexifilm’s Gary Hustwit, it was obvious that “they (i.e. Rhino) didn’t really care, and it cost them.” Filmmaker Arthur Dong, who self distributes his documentaries, also found that creating enhanced DVDs for some of his documentaries breathed new life into them (see the *Case Studies: Filmmakers Who’ve Made Enhanced DVD — Stories from the War on Homosexuality: The Arthur Dong Collection, Vol. 1* for more information).

Unfortunately, some distributors can only add a small amount of enhancements for older titles, often for cost reasons. Additionally, with older titles, it may be hard to find the extra materials to go into enhanced DVDs. Enhanced DVD works exceptionally well for distributors whose focus is on classic media works that are highly prized by collectors. The Criterion Collection is perhaps the best example of this — their finely researched and produced DVDs are treasures indeed. The Criterion approach is great for timeless collectibles where a “must have, will pay” demand is evident and the products are generally evergreen. But such attention to quality and detail is also beyond the reach of most other distributors. ■

Most distributors don’t voice alarm at an impending bottom falling out of the higher institutional pricing — the educational/institutional market is holding on, but perhaps only just. Despite sympathetic institutional media buyers, distributors and independent media makers will be hard-pressed to maintain the higher price points for the institutional market. For every First Run/Icarus, whose sales to the institutional market have gone up despite maintaining higher price points, there will be several other distributors whose sales go down. This means some changes are needed for the independent media arts field to survive, much less thrive. Time may well not be on the side of institutional pricing systems — particularly when those customers who understand the need for such pricing structures cycle out of their positions of influence.

### Consortium Purchasing

Many distributors and independent producers reported a higher percentage of revenues from purchases by consortia representing a geographical area or collection of academic institutions or libraries. Larger academic consortia increasingly make block purchases on behalf of their member universities.

For example, OhioLink is a consortium of Ohio’s colleges and universities, with 600,000 students at 85 schools. Such purchases raise questions about pricing policies and also on how the use of the materials is regulated.

Distributors and makers take most consortium purchase offers on a case-by-case basis. For example, Larry Daressa of California Newsreel responded to a blanket license for Florida state schools. To calculate the cost, they first projected sales revenues made through the usual channels. They factored in the additional use that the programs would get in an expanded use context and boosted the rate accordingly. While the deal with Florida worked well, Daressa said that they do have some fears about distance learning and IP-based media for classrooms via online delivery. For now they “are doing pricing in the dark,” as there aren’t many useful models or standards in pricing.

Producer Peter Wintonick has experienced consortium buying at a national level when selling his documentaries. For example, he sold *Manufacturing Consent*, the film on Noam Chomsky, to Austrian and French governmental agencies on a countrywide basis for schools and libraries. He settled on \$20,000 as a fair price for allowing any school in France to show the film.

Arthur Dong also likes the idea of consortia purchasing as he gets these kinds of requests on a regular basis. He also takes the pricing on a case-by-case basis and negotiates a balance depending upon the circumstances. He generally gives institutions the benefit of the doubt on whether or not they adhere to any limitations that might be in the terms of the agreement.

Many people want to get a better idea of how to handle consortium pricing and presentation policies, especially with new delivery systems within the institutions. There is a real need for bringing users and vendors together to air questions on consortia and new delivery systems such as IP-based delivery and distance learning. A convening and better information and analyses of these areas would help suppliers and independents respond to these new markets and demands as there is little sense of existing benchmarks. Unfortunately, for the moment, many distributors are flying blind in this area.

### Options for Self-Distributing Filmmakers

For those independent filmmakers who do not have or wish to have a distributor, there are some options for distribution vehicles. Perhaps the best known and most widely used is the Amazon Associates program, an online affiliate program of Amazon.com with nearly 900,000 members who have the potential to reach the more than 40 million potential customers in the Amazon network. The Associates range from personal

#### **SIDEBAR #4: CUSTOMFLIX: ON-DEMAND DVD PUBLISHING**

CustomFlix ([www.customflix.com](http://www.customflix.com)) is a rapidly growing company that specializes in on-demand DVD publishing. Their "just in time" service produces units as customers order, so there is no inventory needed. This means media makers launch a distribution operation for a fraction of the traditional cost and still have a great deal of control over the process.

Media makers can send a master to CustomFlix, which will set up an account for as little as \$49.95. CustomFlix will even author DVD masters from a master tape, although handling DVD masters is obviously easier. Makers can then direct potential customers to an "e-store" from a web site, forums, email, search engines or print materials that can be organized by CustomFlix into a customizable Internet storefront for the title(s). CustomFlix produces units as orders come in and ships the DVDs to customers.

CustomFlix charges \$9.95 for sales of between 1-19 units and the fee decreases as sales increase. For example, the fee goes to \$7.95 per unit for sales of 20-49 units and to \$6.95 for sales of more than 50 units. They then send a profit check with a full accounting of sales at the end of each month.

CustomFlix has also ramped up on an ambitious program of partnering with other, larger content providers, including Walmart.com, Wal-Mart DVD Rentals, Amazon.com Marketplace, Amazon.com Advantage, Netflix, CinemaNow, GreenCine, Froogle and Yahoo!Shopping. An example of this strategy is the CustomFlix partnership with Atom Films. The AtomFilms Custom DVD Store ([www.CustomFlix.com/atomfilms](http://www.CustomFlix.com/atomfilms)) offers more than 125 of the most popular AtomFilms shorts through the CustomFlix Build-Your-Own service. Buyers can choose up to 10 clips or a total of 90 minutes of footage to put onto one DVD. Each video clip can be up to a maximum of 30 minutes in duration. The disc's content and packaging is personalized based on the selected films. DVDs are sold for \$19.95. Once a buyer selects the clips for their compilation, CustomFlix produces full-color shelf-ready DVDs on-demand and fulfills directly to the customer.

*Editor's Notes:*

*As of publication time, Amazon acquire CustomFlix, which obviously brings new possibilities in the realm of DVD on demand.*

*Several other companies offer the same kind of services as Custom Flix, for example Acutrack ([www.acutrack.com](http://www.acutrack.com)) and CineMagnetics ([www.cinemagnetics.com](http://www.cinemagnetics.com)). Additionally, Jim Taylor DVD FAQ's lists many sources in section 5.5 ([www.dvddemystified.com/dvdfaq.html#5.5](http://www.dvddemystified.com/dvdfaq.html#5.5)). ■*

blogs to large websites and drive Internet traffic to Amazon.com through specially formatted links that allow Amazon to track sales and other activity. The links can be individual item links for specific catalog items or they can be recommended product links that are dynamically linked by Amazon. The Associates (members) can earn up to 10 percent in referral fees correlated to a relatively simple formula based upon the volume of sales. Amazon also provides additional tools such as "Build-a-Link" and "Amazon Recommends" along with a web services program.

Many of the interviewees said they would prefer other options, because the return from Amazon isn't great. However, it is an efficient system and is often the default choice for distribution vehicles. For example, Peter Broderick, President of Paradigm, which provides consulting services to filmmakers and media companies, said that the 2.5 percent referral rate he received for the *Films to See Before You Vote* series that he founded (see below for more information) was less than he would have expected. That said, it was easy to set up (with Pay Pal, etc.) and Amazon was generally efficient, except for a glitch or two with DVDs stocked in a warehouse. Broderick said he would definitely be interested if an independent distributor could meet the criteria of being responsive, turning DVDs around quickly and providing up to a 10 percent referral fee.

The Books We Like, a Beta website created by Brad deGraf and Anselm Hook, is a good example of how the Amazon model can be quickly adapted into an ongoing and sustainable economic model ([www.bookswelike.net](http://www.bookswelike.net)). The Books We Like connects book enthusiasts in a social network, with Amazon handling the fulfillment and technical work after the initial coding was done by the creators. The system is set up to share lists done by the thousands of recommenders and also compiles data on all previously recommendations.

Another possibility for independents who self-distribute is CustomFlix. The company has received a lot of attention because of its capacity to perform on-demand DVD publishing quickly, thus removing the need to have an inventory of DVDs. Makers can order a specified quantity of DVD-Rs for a relatively low cost. CustomFlix can also help with packaging, design, templates, authoring and other services, including fulfillment, that may well be beyond the capacity of an individual client. (*Sidebar #4: CustomFlix: On-Demand DVD Publishing*)

The ability to distribute programs without an inventory is certainly attractive to independent makers. Now that DVD-Rs are more compatible with a higher number of current DVD players, the option of distributing small runs of DVD-Rs becomes more attractive. The lower cost is an eye-opener for people accustomed to the cost of DVD runs of over 1,000 units on glass plates. For example, CustomFlix charges a filmmaker \$50 to open an account and \$9.95 for each film produced on demand. The filmmaker receives any revenue beyond that. If the title is popular, the filmmaker's profits can rise because CustomFlix's price drops to \$7.95 per disc after 20 copies and \$6.95 per disc after 50 copies.

## The Effects of Theatrical Releases and Television on DVD Sales

The connection between DVD sales and the theatrical release or television broadcast of programs is close, with a number of permutations on this relationship. Everyone sees the strong link between some kind of theatrical or semi-theatrical release or television broadcast and subsequent DVD sales. Yet many offer differing opinions on the relative health of the independent theatrical scene and DVD culture within the independent media culture. The opportunities presented by video-on-demand, pay-per-view and digital video recorders will also impact opportunities for independent work to get seen (and make money). Independent media culture is already struggling to handle the transitional challenges of DVD culture, but will also be called upon to anticipate which of these new phenomena will be challenges and which will be opportunities.

### • Theatrical Release and DVD

Some distributors are firm believers in the need to have a theatrical window to drive DVD sales. Emily Russo of Zeitgeist films noted “we rarely take on a film without some theatrical or TV exposure. Theatrical does drive everything.” However, Curtis Houglund, the President of Film Movement takes a pessimistic view of the theatrical scene and the role played by DVD. He feels that DVDs have given the film market a false sense of security, noting, “DVD sales allow people to think that the emperor has clothes.” He points out that the economics of doing a platform release are very difficult if there isn’t enough money to release the film nationally. While a platform release strategy of starting a film small and gradually building up from there can be a fine way to contain costs, it can still be beyond the means of many filmmakers. Cash flow is also an issue. For example, if the film only takes in a \$1 million at the box office and has merely decent DVD sales, it can be difficult for distributors to recoup their original investment in a reasonable amount of time (even a few years). As a result, many distributors (Cowboy Pictures, Artisan and Good Machine, to name three) have gone out of business, or been absorbed into larger companies.

Peter Broderick is more optimistic about the connection between DVD and some kind of theatrical release, saying “DVD and the Internet can free makers from needing funding with the criteria being whether the project is commercial or not. The filmmaker doesn’t have to be lucky and good *all* of the time Broderick recently coordinated a successful exhibition program with DVD distribution related to the 2004 election cycle. Entitled *Films to See before You Vote*, Broderick secured the permission of major filmmakers like Michael Moore and Errol Morris to have their films presented on college campuses, especially in swing states like Ohio, Pennsylvania and Florida. The model included “Film Fest in a Box,” a prefabricated kit or DVD to push local exhibitions. Screenings took place at a variety of venues, from large semi-theatrical spaces to smaller microcinemas and private screenings. The screenings helped stimulate DVD sales. This experience proved that DVD’s portability and accessibility could really shine when rights and release dates aren’t an issue. Broderick sees real potential for self-distribution, especially if the maker is tuned to social networks and has some marketing savvy. That way, they can

retain a higher percentage of the sales revenues and can see real income from the start. Through social networks, a media maker develops a direct relationship with the audience, along with names and addresses, for future business and marketing.

Some distributors question the thinking behind having a simultaneous theatrical run and DVD availability. For some, it can work beautifully. Plexifilm did a long theatrical run in cities tailored for particular film and at a reasonable cadence, instead of investing everything in simultaneous screenings. For example, *I am Trying to Break Your Heart — A Film About Wilco* played in 130 markets and had a simultaneous window for pay-per-view and DVD sales. The final platform was a television premiere on the Trio channel.

### • Television and DVD

Television exposure has a great impact upon DVD sales, as demonstrated in the example of the partnership between Netflix and the POV series on PBS, which is outlined in the *Social Dimension* section below. Every distributor thought that television exposure stimulated sales. Sales of television DVDs were an estimated \$2.3 billion business last year, approximately 15 percent of total DVD revenue, with very high profit margins as well.

Some distributors, especially those most dependent upon the institutional/educational market, voiced some concerns about television exposure cutting into their sales as audiences and/or potential buyers would have access to programming for nothing. Other distributors saw some kind of television exposure as being akin to the need for some kind of theatrical release. Richard Lorber, of DVD distributor Koch Lorber and formerly of Fox Lorber, holds the view that television exposure is one of the main ways to drive a potential buyer’s attention to DVDs. He has explored using the broadcast slots on niche television channels and their audiences as a way to drive sales of his DVDs.

DVD culture has an impact upon television as well. For example, Henry McGee, president of HBO Home Video, is on the record saying that many DVDs of HBO shows such as *Sex and the City*, *The Sopranos* and *Six Feet Under* are sold to non-HBO subscribers. “Fully 50 percent of Sopranos purchasers do not subscribe to HBO,” McGee says. Rather than dissuading people from getting pay cable by offering choice series for sale on DVD, DVD sales lure new viewers to pay channels. Promotional cards tucked into DVDs of *The Sopranos* worked “very well,” McGee says, noting that DVDs “function as a tremendous sampling tool.” Other analyses estimate that 20 percent of HBO’s non-subscriber revenue comes from DVD sales, overseas syndication of original HBO series and joint venture pay channels in approximately 50 countries. In contrast, five years ago the ancillary revenue streams contributed only 5 percent.

Left unsaid in this formulation is how the presence of available DVDs affects current subscribers. For example, are audiences buying DVD because they don’t think that the monthly fees are worth it for the limited number of programs that they would actually watch? What does that mean for existing subscribers to HBO and other pay cable channels that are moving fast into DVD sales? A more systematic look at how television and DVD

culture might connect at a more synergistic level within independent media culture is needed. For example, independent DBS satellite television channels like Link TV and Free Speech TV are delivered to millions of viewers. Such channels could easily be deployed to help drive DVD sales of independent work if the timing issues are thought through. More work needs to be done to use the power of the one-to-many social space of television with the many-to-many business of DVD, where individuals can watch anything they want anytime they want.

- **Video-On-Demand, Pay-Per-View and DVR**

Many commercial companies are working very hard on new delivery systems like video-on-demand (VOD), pay-per-view (PPV), and digital video recorders (DVRs). VOD and PPV have been around for a while, but are finally reaching a propitious moment for deploying and realizing their potential. In fact, VOD and DVRs are at the heart of the ferocious battle between cable and satellite to gain new customers. VOD is available to more than 12 million digital cable customers, while more than 5 million DVRs have been deployed, mostly to DBS customers as well as customers of TiVo. Cable operators have complicated the issue for themselves-and for potential customers-by hedging their bets and deploying both VOD and DVR boxes.

DVRs have been described as videocassette recorders on steroids. The technology is easy for consumers to understand because it's not far removed from the VCR. Consumers have 30 years of experience using VCRs, which introduced them to the concept of time-shifting their favorite shows. The navigation for VOD is often very cumbersome and time-consuming. TiVo, the super-digital recorder that automatically finds and records up to 140 hours of programming you want and can pause, rewind and slow-motion live TV, has an interface that is state-of-the-art for ease of use.

Nevertheless, much remains to be done before the new delivery systems really take hold. The first hurdle could be educating consumers. Netflix executives say that just explaining to potential customers how the business works has been a struggle. "Our biggest expenditure is getting people to understand our system of a fixed-fee subscription rental without late charges," says Ted Sarandos, Netflix's vice-president for content and acquisition. "The studios underestimate how difficult it is to change consumer behavior."

Blockbuster has already taken the step of removing late fees as a way to better compete with Netflix, even though their "no late fees" policy has some fine print at odds with their "no late fees" marketing and not long after their announcement they were legally reprimanded for stretching the truth. They face new dilemmas in educating their customers and are also moving toward offering downloading services from Blockbuster.com in a year.

Netflix does plan to introduce a movie download service in 2005, in partnership with TiVo. Reed Hastings, the CEO for Netflix, has been quoted as saying that initially Netflix will see modest interest in Internet downloads, but expects the partnership to grow over time. "We think DVDs will be more dominant in five years than they are today," Hastings said. "The evolution to downloading will be slow. The DVD will last as long as the gas engine." But much will depend upon how

Hollywood movie studios react to such a deal. The studios have been having extensive talks with TiVo about a workable content security system, an area that has been a sore point between TiVo and film studios for years.

The other dilemma with new technologies such as VOD and PPV is getting audiences. Many observers have written about the mind shift required for viewers to seek out on-demand channels. In addition, cable systems have plenty of little-watched networks and a growing number of high-definition digital programs that use several times as much data transmission capacity as analog programs.

People like Richard Lorber say that VOD and PPV basically only affect the more commercial tiers and aren't as much of a threat or an opportunity for the specialty niche or for independent media. He recalled a prior experiment in putting foreign titles on PPV that ended in disaster. For now, "People like having stuff" he noted, adding that "50 percent of the titles may never get watched" — an anomaly of the DVD business that evokes patterns in the book publishing industry where people buy books as much for show as for reading. Gary Handman echoed Lorber's comments, saying "Even though times are changing, putting an artifact in a machine will be there for the next ten years." As the example of Netflix facing new and serious competition from VOD and online downloads shows, independent media makers and distributors need to be informed and ready for yet more transitional technologies.

Some distributors have been approached by VOD and PPV companies and have even done a trial project or two. Most of the approaches concern companies asking for VOD or PPV rights along with another contract, in effect dropping new rights into the negotiation in hopes that no one is looking, has no immediate plans to use those rights and/or doesn't care. For example, First Run/Icarus has had cable channels asking for VOD rights. Women Make Movies is selling some films to the new Logo channel, which is asking for VOD rights. The distributors that have progressed beyond initial explorations in contracts report that there isn't much to know yet. Seymour Wishman said that they licensed 17 titles to the new Here!TV, a gay-themed PPV service, but it's too early to tell what the results will be. Emily Russo of Zeitgeist Films said they licensed the Academy Award-winning *Nowhere In Africa* for PPV. While the film was the biggest box office draw in Zeitgeist's history, it did merely "okay" in PPV.

Some independent media community organizations are thinking through their own VOD possibilities. Joel Bachar, the Founder and Curator of Microcinema International, a distributor, curator, and exhibitor of independent media, wants to move into this area, as well as customized on-demand DVD. He is working on a plan that would allow for small cinemas anywhere in the country to pick up Microcinema-curated programming by using a password to access the programming prior to projecting it.

Cable Multiple System Operators (or MSOs) like Comcast and Time Warner Cable are proliferating new VOD channels faster than more traditional channels and much is being made of VOD as a major challenge to DVD culture. And major North American telecommunications carriers like Verizon and SBC are also entering the battle for connecting audiences with their new IP-based systems that will offer hundreds of channels to

consumers. While arriving to the digital delivery battles a little late in the game, the sheer scale of investments from the telcos makes them a force to be reckoned with and makes this platform yet another opportunity for independent makers to get their work to audiences with alternatives to DVDs.

Nevertheless, the impact seems to be less than what might be imagined, or perhaps it is a challenge that will take much more time to be fully realized as VOD is harder to grasp than DVR models like TiVo. Too, it appears that the more commercial arenas will be affected with more force than the independent media arts field.

- **Other New Models for DVD**

A transitional technology like DVD always spawns a wealth of interesting variations in applications and market niches. New models entering the market usually have a high mortality rate. The two examples noted here, Flexplay/Convex EZ-Ds and DVDs in vending machines, have a long way to go before proven successful.

**Flexplay/Convex EZ-Ds.** Flexplay made a big splash over the past year with its release of films on its EZ-D discs that are designed to self-erase after 48 hours. Exposure to air makes the discs cloud up just enough after 48 hours to prevent their being read by the laser in the DVD player. As analysts pointed out when Flexplay discs were launched, disposable disks appealed to American consumers accustomed to disposable products. Why should DVDs be any different, even if the original intent of DVDs was to create a durable medium? Environmental activists weren't pleased. Mark Murray, executive director of Californians Against Waste responded to the launch of Flexplay's EZ-D's in a Wired.com news article saying "This is taking the idea of planned obsolescence to a whole, absurd new level. This is one of those disposable products that we don't really need. This is actually building a limit into the device."

The concerns of environmentalists paled beside the concerns of movie theater owners. The Atlanta-based Convex Group, the company that recently acquired Flexplay, bought the rights to the film *Noel* and attempted to offer it simultaneously in theaters and via the EZ-D format. The move generated a lot of press on the novelty of the experiment. However, this experiment broke the usual syntax of theatrical and DVD releases. Convex had a lot of opposition from the major theater chains, none of which wanted to show a movie that would appear on television and be sold on DVD at the same time. The planned theatrical release in more than 100 theaters shrank to 10 given theater owners' reactions.

The most telling response has been that of major film distribution companies, ranging from general indifference to outright rejection after initial trial runs by companies like Disney. Blockbuster hasn't embraced disposable DVDs because it says it does not want to confuse its customers. Instead, the company has adopted a Netflix-like subscription approach to video rentals. "We really don't see the idea going anywhere, ultimately," Blockbuster spokesman Randy Hargrove said of disposable DVDs in an article that also spoke to other options available to Blockbuster. And a central selling point of Flexplay, that buying a pricey (approximately \$7.00) EZ-D would help

avoid late fees has been undermined by Blockbuster's recent move to waive late fees.

**DVDs in Vending Machines.** MoviebankUSA has opened several stores in Manhattan that will house at least 5,000 DVDs, video games and VHS videos. Like video stores in terms of inventories, these stores won't have human attendants. The pricing is based upon increments of time that Moviebank thinks will be a unique and attractive offering. For example, movies will cost 99 cents for six hours or \$2.50 for 24 hours for members. Potential competitors like Blockbuster are watching the Moviebank experiment with interest. Blockbuster's leadership has been quoted as saying, "We have been experimenting with video vending for the past 10 years... But it's a tough business model. We are not expanding our video vending. If the dynamics change in video vending and it catches on, a Blockbuster vending machine would have more appeal than a generic version."

### **The Transition from VHS to DVD**

As noted previously, it is clear that the transition from VHS to DVD is occurring at a rapid pace. It seems obvious that moving forward, DVD will be the platform of choice for the foreseeable future, in the same way that CDs have replaced vinyl. There will still be choices to make (should a filmmaker create an enhanced DVD of their work?) but it seems clear that DVD is the future. However, that begs the question of what will happen to the films and videos that currently exist solely on VHS. How will those who acquire and those who distribute handle the transition to DVD?

- **Acquisitions/Collections**

Many academic (and some public) libraries have large collections of VHS tapes and continue to buy on VHS. Academic libraries are likely to have both DVD and VHS copies of many titles, as they generally have the purchasing power to buy DVD versions of existing titles in their collections to better serve their users.

However, public libraries are transitioning faster to DVD and unloading their VHS holdings. Nancy Kranich, former head of the American Library Association, said that there are disproportionately more DVDs than videotapes in progressive public libraries because a higher percentage of people in the region served by the library have DVD players. Milos Stehlik of Facets noted that some libraries are even deploying multi-branch servers and regional networks with video-on-demand offerings.

Many people voiced concerns about the increased pressure for public libraries to "deliver numbers" (i.e. high circulation numbers for media titles) and the potential consequences for the independent media field. Seymour Wishman of First Run/Icarus said: "Librarians shouldn't be under the pressure to deliver numbers [for media circulation]. Books aren't under this kind of pressure." Maurice Freedman, Director of the Westchester (NY) Library System and the former head of the American Library Association, provided a different take on this critique, noting that some public libraries, especially in smaller towns, have been perceived by local media vendors as being competitors in the marketplace. Many people warned against "public libraries looking too much like Blockbuster."

While many academic libraries have vast VHS holdings, the status of those collections is dire. Gary Handman of UC-Berkeley, spoke for many academic librarians when he wondered what would happen to his collection of 35,000 tapes. He foresees a time when it will be hard to even buy a VCR to play the tapes. Where will that leave the makers and distributors who haven't fully made the switch to DVD? For now, Handman assumes that he will probably re-buy any Hollywood titles on DVD, but he fears what will happen to the alternative and independent titles.

When asked about solutions to the dilemma of transferring tape collections to DVD, Handman replied that even with intent and money, it is hard to get primary source material for even major documentaries in order to do transfers. Would the new VHS to DVD boxes alleviate the problem? The boxes do a good job of transferring; with some having built in time base correctors and noise reduction, a DVD can often look better than the original VHS source tape, and have little degradation in quality. However, Handman noted that copyright concerns and other rights issues work against a quick and large scale transfer of VHS holdings to DVD. Additionally, it takes time to do the transfer. Even using interns to perform the methodical and time-consuming work involved with transferring isn't a solution when a library's holdings contain tens of thousands of tapes.

The view from public libraries was even more pessimistic about what will happen to the existing holdings of VHS tapes. Maurice Freedman, the former head of the American Library Association and currently Director of the Westchester (NY) Library System, alluded to stacks of tapes in his libraries' hallways as they are replaced by DVD. Freedman was sympathetic to Nicholson Baker's searing critique of library policy regarding transferring newsprint holdings to microfilm in the early 1980s, with the resulting diminution of valuable public archives. While open to an argument in support of videotapes, he didn't get too sentimental about them disappearing from libraries. "Public libraries aren't archival, except for local history," he noted. "A public library is an institution of finite size and collection resources. When anything is added, something must be subtracted." The conclusion: any attempts to collect or archive VHS tapes or to track down the original masters for research purposes would have to come from academic or research institutions. Filmmaker Arthur Dong, who self-distributes his work, spoke about the importance of underwriting the conversion of library collections from VHS to DVD. Such laments underline a lack of confidence in the future of a large number of what are now back-catalog titles. If the incremental approach of doing transfers is the best example of transitioning from tape to DVD, then the future for such programs is bleak indeed.

- **Distribution**

While many commercial distributors have moved quickly from VHS to DVD, the situation faced in the independent media arts communities is far more complex. Many independent distributors, whose collections are primarily sold to institutional customers such as libraries and universities, still sell a lot of videotapes. However, most feel that this situation won't last much longer. Larry Daressa from California Newsreel said that while sales are currently split 50-50 between VHS and DVD, the transition to selling only DVD is coming quickly. Once VHS

sales go below 15 percent, Newsreel will discontinue selling VHS. Jonathan Miller of First Run/Icarus concurred, noting that although "All of our new releases are offered on DVD, principally DVD-R, but there was no need to switch right away as many titles will hang on."

Distributors had a hard time answering the question of how many programs in their catalog would make the transition from VHS to DVD. Generally the big sellers (current or evergreen titles) make the transition to DVD, while back catalog titles aren't a priority. Jonathan Miller notes that it is probably not financially tenable to transfer their whole catalog of 800 titles. For now, First Run/Icarus is transferring one program to DVD per day, with a focus on newly acquired programs. It takes approximately three hours per title, as they are adding some scene selections, not just straight encoding. Miller questions how cost effective it is to go too far into the back catalog when approximately 25 percent of their titles don't sell more than one copy per year. Debbie Zimmerman, of Women Make Movies, echoed Miller's comments when she said that slow sales of back catalog titles meant that transfers weren't justified financially.

The independent media arts field may need to practice creative interdependence strategy in order to solve the problem of transferring back titles. One successful model (used on a limited basis at a few universities) is for independents to approach major universities about exchanging technical services, such as transferring videotape to digital, for access to the programming on some basis. Although potential revenue may be cut by having programming available to some portion of the student body, there is a very valuable return to the distributor that may outweigh the monetary value of a modest sale. Another possibility is the Internet Archive ([www.archive.org](http://www.archive.org)), which is already providing transfer and hosting services in return for having makers put their programs into a public commons, with intellectual property licenses derived from the formulas originated by the Creative Commons (see the section on Creative Commons below).

Whatever the solution, film and videomakers, distributors, librarians, archivists and funders need to make a concerted effort to take on the major — but achievable — task of preserving a generation of programs on VHS before they disappear or are obsolesced. The quality of VHS to DVD transfer boxes, the low costs and high technical quality could help facilitate an effort that could be a manageable public works project that would be a service to future generations.

## **The Social Dimension**

The independent media arts field, together with the larger commercial media industries, is in the middle of serious thought and planning about the connection between existing technologies and new digital technologies in their work. While no transition to new technologies is ever just technical (or economic), the technical often dominates the discussion about what a new technology is and its possible uses. However, the transition to DVD is more affected by social forces than most new technologies and consequently, the social capital that has been central to independent media culture can finally be activated in a way that is commensurate to its value. There are social upsides and downsides to the new digital domain. In this

section, we will look at both sides of the digital coin, including some possible solutions.

### **Social Upside: Digital Interdependence**

The transition to DVD comes at a time when a great many new tools are available to connect people and to leverage the kinds of social and relationship capital that has heretofore been submerged in a cash-based economy. This section addresses how new tools and strategies for interdependence are being brought to bear in a way that helps expand and deepen the impact of DVDs in contemporary culture.

New tools for image capturing, image processing and media delivery have often driven major changes in media making, with corresponding social impact. More portable film and video equipment helped drive the proliferation of independent film and video culture. New digital technologies, like social networking software, and new media delivery tools can help bring people together. This is exactly where old media and new media cultures might find common cause. While studies have shown that new media technologies can often increase the isolation of people and decrease palpable social connections, there is no necessary connection. For example, a great portion of independent media's value has been the quality of the work produced and the relationships forged between makers and audiences. This "relationship capital," so integral to independent media culture, can be brought to bear using some of the new digital tools. The techniques for finding and developing audiences and a perceived sense of "us" that have been employed by "old media" practitioners can inform the development of communities with new media hardware and software.

American independent media makers have a strong tradition of arguing for and helping to catalyze social change. But we all need to raise our game in the current moment, and to do a better job of working with one another and leveraging our key resources, relationships and assets. It may be that the fierce independence that helps drive alternative media and political cultures can also be a limiting factor if not balanced by the need for more cooperative and strategic action.

It takes time and hard work to find a common language, to engage in productive and collaborative work, and to build trust to the point where working together at a deeper level can occur. A fundamental rethinking needs to happen — and the idea of interdependence isn't so far from where things are right now. For example, theorist Howard Rheingold is actively pursuing a far-reaching idea of Cooperation Studies with the Institute for the Future. He and others see "cooperation" as a crucial tool to deal with the accelerating complexity of contemporary life and work, especially in the digital domain. This and other recent phenomena argue for a better and more useful balance between independence and interdependence.

For example, much could and will be made of a union of "one-to-many" communications technologies, such as television, with "many-to-many" technologies like broadband archives, weblogs and more. Sections below on television, theatrical and social networks each address ideas and concrete examples of how each of these areas can help drive sales of DVDs and also better

connect independent/interdependent makers with their audiences and communities.

Taking the initiative to create effective partnerships can be a way to avoid the usual scenario of independent media culture merely reacting to yet another wave of transitional technologies. One way to do this is by combining the passion for independent media with groups that are better at marketing themselves than the usual independent maker.

#### **• Netflix Mission and Collaborations**

A telling example of how a new partnership was forged with some success is the collaboration of Netflix with the POV series on PBS and leading documentary distributor Docurama. The partnership called for Netflix to market programs that aired on PBS during Summer 2004, beginning the day after the national broadcast.

Many interviewees for this paper, most of whom are keen observers of the independent media world, had low expectations for the POV/Netflix experiment. But POV Executive Director Cara Mertes reported that the first POV/Netflix program, *Farmingville*, did very well. Within a week, there were 3,000 rentals, with more than 10,500 Netflix members in a rental queue, waiting for the DVDs to be passed along, per the policy of Netflix.

The POV/Netflix/Docurama partnership makes sense for many reasons. First, Netflix has more than 1,000 documentaries in circulation. Second, Netflix has an effective matching tool called Cinematch, which effectively connects audience preferences with a more focused menu of works. POV has benefited from the marketing savvy of Netflix and Mertes says that "Netflix is really brilliant at targeting audiences."

The Cinematch tool, a proprietary software, allows Netflix's more than 2 million subscribers to rate movies. Knowing subscribers' preferences in choosing and rating films allows Netflix to customize recommendations and has created a unique and compelling channel by which to market films more efficiently. CineMatch organizes the Netflix library into clusters of similar movies and then analyzes how customers have rated them. Those who have given similar ratings to the same movies in a cluster are then matched as like-minded viewers. CineMatch looks at the clusters that have been rented in the past, determines which titles yet to be rented, and recommends only those films highly rated by matched viewers. The more ratings a visitor performs, the smarter the Cinematch system becomes. "Over 50 percent of our traffic comes via the recommendations system," says Netflix CEO Reed Hastings. "It requires a lot of database work done in real time." At peak times, Netflix has upwards of 10,000 simultaneous visitors, and each one views from 10 to 20 customized pages.

The Cinematch software is a significant step forward in having personalized profiles facilitate future decisions. Netflix has added another layer of the social dimension with Netflix Friends, a new feature that allows Netflix members to create a friends list and share movie ideas with their friends. The system works in two directions. Once a network of friends is created, each person in it can view the ratings and comments of others about specific films. Each member of a network can also share ratings and comments about movies with any or all of the others in the

network. The more films each member sees and rates, the more value each brings to the network. Cindy Holland, the VP of Content Acquisition at Netflix, says that numbers are still coming in on the success of the Beta-test of Friends, but that “they have had strong adoption so far.”

Netflix can carry more copies of both undistributed films and smaller indies than video stores because they have virtually unlimited shelf space. In addition, because the company has 12 regional hubs, consumers in smaller markets receive their films in the same time (2 to 4 days) as customers in New York or Los Angeles. “When we get a new documentary, we can immediately e-mail 40,000 documentary lovers and — overnight — get 6,000 to 7,000 people to add it to the rental queue,” states Ted Sarandos, the chief content officer of the online rental service Netflix. “There’s no marketing effort.”

The Netflix/POV deal called for each partner to extend themselves beyond their usual models. For example, POV had wanted to partner with Netflix before, but were stymied by the need for exclusivity for the programs when most of the works broadcast by POV were handled by a range of distributors. Mertes then opted for non-exclusive contracts for the life of the DVD. Netflix also had to make a serious approach to the independent media community in order to expand their range of available content. Such a move is natural since, as Cindy Holland noted, “Netflix wants to build and share our love of movies” and has a strong motivation to fix what they see as problems in the film distribution business by presenting many films that would otherwise be under distributed. So the social and cultural mission alignments of Netflix and the independent media community were already there, waiting to be connected. The logic of this union seems to have eluded competitors like Blockbuster.

The Cinematch software and Friends system are key differentiators for Netflix as it braces for the current and future challenges to its business model from massive competitors like Blockbuster, Amazon and Wal-Mart. Having a large company like Netflix turning to social networks and customer profiles is evidence of the power of social networking and reputation-based systems and independents will do well to learn from these examples.

#### • Reputation-Based Systems

Some of the power that can emanate from social networks created through “trusted source relationships” are illustrated in this quote from Jonathan Peizer, the Chief Technology Officer of the Open Society Institute in a recent article on trusted source relationships: “A good non-profit trusted source relationship can influence other non-profits, government and commercial actors to want to partner with and promote it....The trusted source relationship is viral in nature. Often people and institutions adopt a positive view on a particular project, and de facto, the organization managing it through first hand dealings or, very often, through other trusted sources informing them of it. The “branding” of the organization managing the project flows directly from how effectively it carries out its mission and the number of trusted sources it accumulates.”

Social networking software has seen great advances in recent years, most of which relies on the concept of trusted source

relationships. While the social networks in the independent media and library communities are relatively small, such as the VideoLib (Video Librarian) listserv with 750 members, some groups in the social networking space like Care2 ([www.care2.com](http://www.care2.com)) have almost 5 million members. Members are often aligned by interest groups that match up well to the sales markets identified by the independent distributors.

A recent study from the Pew Internet Project found that 33 million American internet users have reviewed or rated someone or something as part of an online rating system. The study went on to say that 26 percent of adult internet users in the U.S. have rated a product, service or person using an online rating system. These systems, also referred to as “reputation systems,” are interactive word-of-mouth networks that assist people in making decisions about which users to trust or to compare their opinions with the opinions expressed by others. “Internet users see these systems as a way to help them figure out what information and people they can trust online,” said Paul Hitlin, a Research Associate at the Pew Internet Project in a text connected to the release of the study

The independent “brand” is all about reputation, and the good news is that “we” are bigger, better and have more assets than we may think. The bad news is that we have to do better at contacting, working with each other, and cooperating. New technologies have a way of making people think there are short cuts to the hard work of building and maintaining communities. The multiple outcomes of new technological changes are fraught with gaps between rhetoric and reality and with unintended outcomes. Nancy Kranich addressed this when she said, “New technology stuff needs to be viewed from two sides and needs to be a team effort. There needs to be assessing, talking to people, doing tests and pilots, and to do evaluations from there. Then you can make some moves without just responding to the marketplace.”

Reputation-based systems are moving quickly into the marketplace. For example, television executive Michael Jackson, the former Chief Executive of Britain’s Channel Four, and author/editor Kurt Andersen are working on a new reputation-based company that will be a monthly subscriber-based system for delivering DVDs, CDs, music, magazines, and hard and soft cover books. The two have a lot of curatorial firepower between them and a wealth of associates who will help build a brand out of the filtering that will ensue. The venture is designed to be a trusted editorial filter for people who want the cool stuff, but who don’t have the time to find the cool stuff in the delirium of popular culture and the internet.

#### **Social Downside : Copyright Wars and Intellectual Property Issues**

Although the transition to DVD comes at a time when a great deal of new social networking tools are available, there are also new tools and economic forces that inhibit the full flowering of DVDs. Artists have more and more options for delivering their work to audiences, which is fantastic. What is not so fantastic is that the multiple delivery options and multiple venues for audiences encountering work make for a bewildering array of rights issues. The escalation of digital rights management systems has only just begun, and the recent heavy-handed tactics by the Recording Industry Association of America

(RIAA) against perceived file-sharing pirates have confused, frightened and angered a lot a people.

The issues around copyright protection at the legal and technical levels are very intertwined with DVD culture, although this doesn't have to be the case. In this area, DVD differs from VHS culture, at least until the resolution of the potential scope of recordable DVD players plays out. For now the major industry players generally have succeeded in restricting the ability of consumers to have the freedom currently afforded with VHS tapes and VCRs. For a list of content protection tools on DVDs, see section 1.11 in Jim Taylor's great DVD FAQ list at [www.dvddemystified.com/dvdfaq.html](http://www.dvddemystified.com/dvdfaq.html).

The battle for copyright protection and the creation of the overreaching Digital Millennium Copyright Act (DMCA) act as a restraining force on DVD culture. Independent media makers and distributors are very divided on this issue. On the one hand, they have a reflexive sympathy for advocates of public commons and file sharing coming from generous and public-minded impulses. On the other hand, they remain wary of what they see as a slippery slope leading to their not being able to guarantee a fair financial return on their talent and labor.

Groups like the Electronic Frontier Foundation and Public Knowledge are doing excellent work at framing the issues around the DMCA and related intellectual property rights issues. They, along with noted theorist and legal expert Larry Lessig, are working toward ways to synthesize the needs, aspirations and concerns of makers and audiences in a win-win scenario.

Talking about Digital Rights Management (DRM) issues is difficult. "So many of the issues that we deal with are really abstruse," said Wendy Seltzer, an intellectual property attorney with the Electronic Frontier Foundation and the principal creator of the Endangered Gizmos campaign. "And yet they touch a whole segment of the public that we want to reach out to." Rick Weingarten of the American Library Association's Office of Information Technology and Policy echoes this, saying, "It's hard to put it on a bumper sticker. It's hard to explain to a consumer that there could one day be a lot of restrictions on what you can do with new technology." For example, he wondered if and when the public will understand that if they want to use the Internet as a library, copyright law has to allow that to happen.

On the other hand, all but the most strident file-sharing advocates agree that illegal file sharing is counterproductive in the long run. New groups and delivery platforms/tools have built consciousness of a fair return to producers and content creators into their tools and work.

A hopeful sign of changes in the battles over content management systems is that DVD analyst Jim Taylor said that some changes are being made in the specifications and design for the next wave of DVDs envisioned in 2006 or later. The restrictions on copying will be less draconian because content industries understand the need to be more flexible with audiences, markets and technologies. This is hopeful sign that commercial content providers won't play legal hardball forever and that some of the potential of DVD technology might be better realized.

## The Future

What could be the future of DVD culture and independent media if the full activation of social, economic and technological possibilities is brought to bear? What possibilities and opportunities would then exist for independent media? The following provides some examples of new directions for the future of DVD. Many of the examples listed below use social networks to leverage the potential power of DVD. Social networks are increasingly being used to advance particular programs and ideas, particularly social critiques. An effective blend of the social and the technological can be a powerful combination. Connecting mature and large-scale social networks with independent DVD culture would seem to be a natural move.

### Robert Greenwald and MoveOn.org

A good example is producer Robert Greenwald's work with the documentaries *Uncovered* and *Outfoxed*. His use of social networks and activist orientations provides a useful guide to how the independent media arts field might employ social networks. Greenwald has done exceptionally well with selling DVDs of his films. For example, *Uncovered: The Whole Truth About the Iraq War* sold more than 200,000 DVDs and his most recent film, *Outfoxed*, played at more than 3,000 house parties around the country.

MoveOn.org is another useful example. MoveOn had great acceleration in a short amount of time, with more than 2 million members. They played a large role in raising tens of millions of dollars for the Presidential campaigns of Howard Dean and John Kerry. MoveOn is still figuring out what attracts and binds their community of members. A central fact of social networks is that groups and individuals have to balance the urgency of needs with people's ability to take in and respond to messages, however trusted the source might be. Therefore, MoveOn is weighing the proportion of how many messages to send to their trusted network. Too many messages make members feel overwhelmed, so it is necessary to balance a reasonable cadence of messages with political imperatives.

The power of MoveOn can be found in the inspiring map that they did in the aftermath of house parties screening Robert Greenwald's *Uncovered*. The maps use data visualization tools to demonstrate the quantity of house parties, and also provide photos of the individual parties and the people who attended them. The project works on the macro level and on the micro level, with individual participation being reflected back as a larger quantity of collective participation. Easy and swift DVD distribution was at the center of the process *together* with active social networks. While the data visualization is inspiring, it couldn't have happened without social networks and DVD distribution. The link for the MoveOn map can be found at: [action.moveon.org/uncoveredusa/index\\_flash.html](http://action.moveon.org/uncoveredusa/index_flash.html)

### DVD, Television and Bit Torrent

BitTorrent is one of the most successful peer-to-peer programs ever, but not many people know it exists. BitTorrent lets users quickly upload and download enormous amounts of data, files that are hundreds or thousands of times bigger than a single MP3. (Sidebar #5: *BitTorrent: A Powerful Tool for File-Sharing*) A recent article described BitTorrent's unique character stating,

“Paradoxically, BitTorrent’s architecture means that the more popular the file is the faster it downloads — because more people are pitching in. Better yet, it’s a virtuous cycle. The more files you’re willing to share, the faster any individual torrent downloads to your computer. This prevents people from leeching, a classic peer-to-peer (P2P) problem in which too many people download files and refuse to upload, creating a drain on the system.”

More than 20 million users have downloaded the BitTorrent application, which means that BitTorrent now accounts for more than 30 percent of all of the internet traffic in the world. An example of its impact was the recent circulation of the famous John Stewart televised battle with the hosts of CNN’s Crossfire program. More than 2.3 million people streamed the clip, but CNN’s audience for Crossfire was only 867,000.

BitTorrent provides an alternative to the media conglomerates who have focused on the cables and wires and other conduits for transmitting programs by allowing people to access and distribute programs outside of that system. Eric Garland, CEO of the P2P analysis firm Big Champagne, says “The real work isn’t acquisition. It’s good, reliable filtering. We’ll have more video than we’ll know what to do with. A next-gen broadcaster will say, ‘Look, there are 2,500 shows out there, but here are the few that you’re really going to like.’ We’ll be willing to pay someone to hold back the tide.” The real value of the so-called BitTorrent broadcaster would be to highlight the good stuff, much as the collaborative filtering of Amazon and TiVo helps

people pick good material.

## The Creative Commons

The Creative Commons is an organization born of the effort to rethink the rules and values around the production and dissemination of creative ([creativecommons.org](http://creativecommons.org)). The Creative Commons offers creators multiple options for retaining some control over the use of their work. Protecting financial return is important, but the monetary concerns need to be balanced with “fair use” and the right of the public to engage with cultural phenomena.

The Creative Commons’s array of licenses can be seen at “Choose License” link at [creativecommons.org/license](http://creativecommons.org/license). An artist can check off the particular areas that apply for a real or hypothetical work, and the tool will suggest a license tuned to their desired aims. The custom licensing tool has an excellent interface and is an effective way to educate artists and other users on the intricacies of rights management issues, as well as proposing concrete solutions at the end of a short process. The Creative Commons could easily partner with other organizations to design the best possible internet-based system for the independent media arts field.

Nicole Betancourt said that [MediaRights.org](http://MediaRights.org) was one of the first groups to offer Creative Commons licenses. MediaRights.org uses an online toolkit with various functions to connect their base of 8,000 members. Once a program is listed on the site, it notes whether or not it is covered by a Creative Commons

### SIDEBAR #5: BITTORRENT AND OTHER PEER-TO-PEER TOOLS

BitTorrent is a file-sharing system that ties downloading speed to the amount of files being shared. It is a powerful tool, particularly in combination with other delivery technologies.

While relatively simple, the Bit Torrent protocol does require a little introduction to grasp how it works as well as gauging its remarkable potential. One of the best explanations for the Bit Torrent system is found on the How Stuff Works website ([computer.howstuffworks.com/bittorrent.htm](http://computer.howstuffworks.com/bittorrent.htm)/[printable](#))

The following short introduction is provided on the link, but it is well worth the time to further explore the link, which has useful explanations and fine graphics:

BitTorrent is a protocol that enables fast downloading of large files using minimum Internet bandwidth. BitTorrent costs nothing to use and includes no spyware or pop-up advertising.

Unlike other download methods, BitTorrent maximizes transfer speed by gathering pieces of the file you want and downloading these pieces simultaneously from people who already have them. This process makes popular and very large files, such as videos and television programs, download much faster than is possible with other protocols.

With BitTorrent, the more files you share with others, the faster your downloads are. Finally, to make better use of available Internet bandwidth (the pipeline for data transmission), BitTorrent downloads different pieces of the file you want simultaneously from multiple computers.

Downloading pieces of the file at the same time helps solve a common problem with other peer-to-peer download methods: peers upload at a much slower rate than they download. By downloading multiple pieces at the same time, the overall speed is greatly improved. The more computers involved in the swarm, the faster the file transfer occurs because there are more sources of each piece of the file. For this reason, BitTorrent is especially useful for large, popular files.

The BitTorrent website ([www.bittorrent.com](http://www.bittorrent.com)) goes on to add that “Cooperative distribution can grow almost without limit, because each new participant brings not only demand, but also supply. Instead of a vicious cycle, popularity creates a virtuous cycle. And because each new participant brings new resources to the distribution, you get limitless scalability for a nearly fixed cost.”

Veteran online content producer Mark Pesce speaks to the ability of the peer-to-peer tools like Bit Torrent technology and the related Kontiki P2P tool when combined with a large-scale television operation like the BBC that had the foresight to deploy the tool to its best advantage:

One of the biggest media organizations around — the BBC — is getting in front of this trend with something they’re calling “Flexible TV.” It’s a PC-based application which gives residents of the UK access to the BBC programming schedule, within a two-week window: a week before the present moment, and a week after. Viewers make their selections from the program schedule, and the programs are downloaded to the users’ hard disks. The BBC is testing Flexible TV with a thousand

users, but expect it to be rolled out across the UK by the end of the year.

A broadcaster spends the same amount of money whether 10 people or 10 million are watching a broadcast, because the broadcast tower reaches all who want to tune into it. The economics for netcasting are quite different. Anyone can set up a server to send out ten simultaneous program streams — but it requires a million times the infrastructure and bandwidth to serve the same program to 10 million people.

Or it used to.

The BBC has cleverly designed the Flexible TV application to act as a node in a Peer-to-Peer network. Anyone using Flexible TV has access to the programs which have been downloaded by any other Flexible TV client, and can get those programs directly from them. All BBC need do is provide a single copy of a program into the network of P2P clients, and they handle the work themselves. More than this, because of the P2P technology used by the BBC (more on this in a moment) a Flexible TV user can get a little bit of the program from any number of other peers; rather than going through the process of downloading an entire program from one other peer, the Flexible TV client can ask a hundred other clients for small sections of the program, and download these hundred sections simultaneously. Not only does this decrease the amount of traffic that any clients has to handle, it also means that it produces a virtuous cycle: the more popular a program is, the more copies of it will exist in the network of peers, and therefore the more easily a peer can download it. *(cont.)*

#### Sidebar #5 (Cont.)

In other words, the BBC has cracked the big problem that has prevented netcasting from taking off. In this system of "peer-casting" the network is actually more efficient than a broadcast network, because more than one program can be provided simultaneously, and failure in any one point in the network doesn't bring the network down. In other words, this network can't be hacked, can't suffer from a power outage (unless it spans the whole network, which is very unlikely) and achieves unheard-of efficiencies in the distribution of audiovisual programming.

But what about DVDs? How could the BBC/Bit Torrent example be adapted in the United States? There are a growing number of small public television channels in America, none of which is connected to the politically vulnerable PBS network. These channels include Link TV, Free Speech TV and Current, with others in the incubation mode, like Independent World Television (IWT). And there are a variety of public-minded content providers with no direct television outlet who are eager to use Bit Torrent to distribute their work online. An Open Network Portal is currently in development with Link TV, radio broadcaster Air America, the SEIU union, the AlterNet website and several others. The portal

will deploy the latest iteration of Bit Torrent, called the "Broadcast Machine." Holmes Wilson, of the Downhill Battle team that is developing the Broadcast Machine, which will be an even easier tool for uploading programming with the Bit Torrent software and subsequently delivering the content via the internet.

One of the advantages of the Open Network is that it combines the ability to do free web publishing with the Broadcast Machine tool with other functionalities derived from other open source tools. Open Network also offers full set of online community tools, an application called DTV that lets you manage subscriptions to video content, a well-established Content Management System (CMS) that makes it easy to upload content. Adding a new video, plus all the descriptive information that goes with it, takes about three minutes. So quality video distribution can be both free and fast. Another advantage is that there is an existing web design template that is both more attractive than most online distribution venues and it allows every content partner in the Open Network to get its own, branded pages to showcase its video content.

There are already analogous combinations of online-based functionalities to the Open Network. For example, the Open Media Network ([www.omn.org](http://www.omn.org)) uses a peer-to-peer delivery tool called Kontiki that is

comparable to Bit Torrent and has other features such as the ability to do subscriptions via RSS and has built-in digital rights management in its system.

A growing number of groups and individuals are creating new custom-built hardware to best deploy and distribute Bit Torrents. For example, Drazen Pantic at the exhibition and artist residence space Location One in New York is building an inexpensive box that would be an effective Bit Torrent seeder as well as a vehicle for the useful DV Guide. In addition, the Electronic Frontier Foundation, a digital civil liberties organization, set up what it is calling the Television Digital Liberation Front. Starting in July 2004, it began holding the first of a planned series of nationwide "build-a-thons" to help novices build home-brew digital televisions and DVRs based on systems like the perfectly legal MythTV software.

Any one of these broadcast networks could work with Bit Torrent software and custom hardware designers and set up a very effective transmission system for sending digital signals to millions of homes. And millions of these homes are or will be outfitted with DVD burners. A flow of programming could easily do from DVDs to Bit Torrents to television signals and then back to the DVD owner. ■

license. When asked about whether any of their members had problems with the ideas of the Creative Commons, she replied that there were very few, in part because their constituency is younger and more activist-oriented, and consequently the copyright battles aren't so intense.

The Creative Commons doesn't actually house the digitized programs. Rather, it provides permutations of legal rights scenarios on how work can be used, according to the wishes of the owners/creators. Therefore, any work with the Creative Commons would need to be in relation to work with archives and other relevant areas for the arts fields. At the very least, connecting the arts fields to the insights of the Creative Commons would be a service to those fields.

Underpinning the thinking and work of the Creative Commons and others is a sense of a public commons that can be fed and used by a community of many people willing to participate. It is a fine effort toward real interdependence and provides some tangible and useful tools.

#### Alternative Payment Systems

One way to break the logjam over intellectual property rights and to get away from the false accusations reducing opposing positions to piracy and greed is to alter the system for how talent and work are compensated. Rather than assume that the current industry norms will forever be the case, a new generation of radical thinkers is proposing alternatives.

One such thinker is William Fisher, director of the Berkman Center at Harvard. He has spent several years devising an alternative compensation system that would enable the entertainment industry to restructure its business model. Fisher has lamented the energy that has gone into "interpreting or changing legal rules in hopes of defending older business models against the threats posed by the new technologies. These efforts to plug the multiplying holes in the legal dikes are failing

and the entertainment industry has fallen into crisis." His book, *Promises to Keep: Technology, Law, and the Future of Entertainment* (Stanford University Press), provides ample food for thought concerning the opportunities presented by the new technological innovations.

Fisher has proposed an administrative compensation system that would provide an alternative to the current copyright regime. To paraphrase his text, the owner of the copyright in an audio or video recording who wished to be compensated for its use would register it with the Copyright Office and would receive, in return, a unique file name that would be used to track its distribution, consumption and modification. The government would raise the money necessary to compensate copyright owners through a tax — most likely, a tax on the devices and services that consumers use to gain access to digital entertainment. Using techniques pioneered by television rating services and performing rights organizations, a government agency would estimate the frequency with which each song and film was listened to or watched. The tax revenues would then be distributed to copyright owners in proportion to the rates with which their registered works were being consumed.

#### The BBC's Creative Archive

Rethinking intellectual property issues need not be pipedreams or anomalous experiments that don't have much weight in the marketplace. Larger commercial concerns are realizing that they have to try options other than litigation to handle their dilemma with new technologies that facilitate access to programming. David F. Poltrack, CBS Television's executive vice president for research and planning, was recently quoted on the subject, saying, "We have to try as an industry to get ahead of this and give the audience an attractive model before the illegal file-sharer providers meet their needs." Many corporate leaders are coming to the conclusion that they can make money and suffer

far less from the deployment of new technological innovations if they create the opportunity to access content freely.

One major player doing just this is the BBC, which decided in 2004 to launch the Creative Archive project and its Flexible TV initiative. The Creative Archive will make huge amounts of audio and video clips available to the public for noncommercial viewing, sharing and editing. For now, the BBC archive would only be available to British citizens who pay the yearly TV license fee, but at least the BBC is following through on its mandate and opening up access to its programming archive. The BBC has become a leader in deploying new delivery tools like BitTorrent through its Flexible TV initiative. (*Sidebar # 5: BitTorrent.*)

The BBC plans to license its materials using a system similar to Creative Commons. Lawrence Lessig, a Stanford law professor and founder of Creative Commons, said the BBC's plan would help the world understand that there is more at stake in the copyright war than "piracy." "If the archive succeeds... then that will drive demand for computers, broadband and software to enable that creativity," he said. "Businesses — beyond the content industry — will recognize just what's at stake." He went on to say "The announcement by the BBC of its intent to develop a Creative Archive has been the single most important event in getting people to understand the potential for digital creativity, and to see how such potential actually supports artists and artistic creativity,... If the vision proves a reality, Britain will become a centre for digital creativity, and will drive the many markets — in broadband deployment and technology — that digital creativity will support."

The directors of the Creative Archive plan to release a wider array of programming over time. They will have to advance carefully, as there are many preexisting legal impediments to making programming available via the Internet, even if for non-commercial uses only.

The BBC experiment is very interesting, even though for now only those already paying the annual BBC license fee can use it. It is a good example of how a major institution can help the media field advance by taking a chance on different and more generous approaches for access to knowledge and creative output. Having a major player like the BBC do an experiment like this speaks well for future possibilities, as well as the benefits that can be accrued from a system where the public invests in public media and gets benefits as a result.

## Conclusion

The digital domain has been and will remain in flux as multiple new transitional media delivery technologies are deployed. The rapid proliferation of DVD players and discs has followed a pattern akin to that of videocassette recorders and tapes in previous years, but has advanced with even greater speed. DVD culture has helped connect independent works to larger audiences than have been possible in previous years and can even approach the numbers of audiences for television programs. Additionally, DVD culture has helped to reclaim a space for those works that generate very little demand and that have often fallen off of the radar due to the traditional norms of the media marketplace. The recent "Long Tail" article, by *Wired*

*Magazine's* editor Chris Anderson, makes a compelling case that digital media such as DVDs means no program need ever be out of print.

DVD culture faces many challenges in the future, primarily from online and wireless delivery technologies. It remains to be seen how DVD culture meets these challenges in the future. For now, there are encouraging examples of DVD culture adapting to the competitive challenges keeping inventories low, with on-demand publishing strategies such as those proposed by Custom Flix. Already, Netflix has demonstrated how the smart use of reputation-based systems and matching technologies can greatly increase demand for their DVDs.

Connecting DVD culture with new developments in online peer-to-peer delivery, such as BitTorrent, Kontiki and others will take some time. However, there is every reason to believe that a helpful synthesis can occur. For example, the delivery of programs via online sources can reduce the need for shipping costs and inventories of independent media. But the pleasures of enabling online downloads run up against the capacity of home and office computers, and most P2P enthusiasts envision some kind of external storage device to handle large quantities of downloads. The DVD is poised to be a simple and available storage device to do just that, even before the deployment of new HD DVDs with exponentially more storage capacity.

What "digital" can give with one hand, it can take away with the other. It's important to stay away from binary thinking when analyzing all things digital. For example, digital technologies and the Internet can compress space, connecting people in new and effective ways. Digital technologies can also capture and process high quality images at a very low cost. But the complexity of digital technologies increases the costs for connecting works to meaningful audiences. And the plethora of delivery options afforded by digital technologies vastly increases the marketing and promotional costs for launching new work into the public domain. New media theorist Clay Shirky points out the need to be aware of the dynamic balance of the pleasures and pains of digital technologies when he said, "So the web can paradoxically enhance our ability to communicate and further isolate us. The real danger, it seems to me, is in believing that it can only do one or the other."

The blessing and the curse of digital technology is that the digital aspect makes everything connect with everything. Boundaries blur — and producers, consumers and others in the broader media terrain need to track more than the intrinsic properties of one particular new platform or technology. This is especially true of a DVD culture that overlaps with many other concerns. The independent media field has a reputation for maintaining a mission-based focus, even while balancing technical needs, creative fundraising efforts, and finding elusive audiences. This shared sense of mission and community will be crucial aids when navigating the delirium of data, information, knowledge, and wisdom that accompanies the onset of multiple media delivery systems.

## QUICK REFERENCE GUIDE TO DVDS

The following texts are a quick reference guide to DVDs. The primary source is Jim Taylor's important DVD FAQ web page that can be found at [www.dvddemystified.com/dvdfaq.html](http://www.dvddemystified.com/dvdfaq.html)

### Frequently Asked Questions

*What do the letters DVD stand for?*

The original acronym came from "digital video disc."

*What is DVD?*

DVD is the new generation of optical disc storage technology. DVD is essentially a bigger, faster CD that can hold cinema-like video, better-than-CD audio, still photos and computer data. DVD aims to encompass home entertainment, computers and business information with a single digital format. It has replaced laserdisc, is well on the way to replacing videotape and video game cartridges, and could eventually replace audio CD and CD-ROM. In 2003, six years after introduction, there were more than 250 million DVD playback devices worldwide, counting DVD players, DVD PCs, and DVD game consoles.

*Useful Statistics*

- A DVD can hold more than 2 hours of high-quality digital video (a double-sided, dual-layer disc can hold about 8 hours of high-quality video, or 30 hours of VHS quality video) and up to 8 tracks of digital audio (for multiple languages, commentaries, etc.), each with as many as 8 channels.
- By March 2003, six years after launch, more than 1.5 billion copies of DVD titles had been shipped

*What are the disadvantages of DVD?*

- DVD recorders are more expensive than VCRs.
- DVD has built-in copy protection and regional lockout limiting playback in different countries and any duplication.
- DVD doesn't fully support HDTV.
- There are some compatibility issues with recordable DVD formats, such as DVD-R, DVD-RAM, DVD-RW, DVD+RW, and DVD+R.

*How long do DVDs last?*

DVDs are read by a laser, so they never wear out from being played since nothing touches the disc. Pressed discs (the kind that movies come on) will probably last longer than you will, anywhere from 50 to 300 years.

*Will DVD replace VCRs?*

Eventually. DVD player sales exceeded VCR sales in 2001. DVD recorders will hasten the death of VCRs once the price difference is small enough. DVDs have many advantages over tapes, such as no rewinding, quick access to any part of a recording, and fundamentally lower technology cost for

hardware and disc production. Some projections show DVD recorder sales passing VCR sales in 2005.

*Can DVD record from TV/VCR/etc?*

Yes, if you have a DVD recorder. Note that DVD video recorders can't copy most DVD movie discs, which are protected.

*How can I sell DVDs that I made?*

Amazon zShops and CustomFlix are the most commonly used venues for selling DVDs. Acutrack and Cinemagnetics are also popular venues. Auction sites such as eBay, Amazon Auctions, Yahoo Auctions, uBid and others can be used, but require more work by the mediamaker in terms of taking payments, producing, packaging and shipping discs.

### DVD Production

DVD production has two basic phases: *development* and *publishing*. Development is different for DVD-ROM and DVD-Video, while publishing is essentially the same for both. Cheap, low-volume productions can be duplicated on recordable discs, whereas high-volume, mass-market products such as movies must be replicated in specialized factories.

DVD-ROM content can be developed with traditional software development tools such as Macromedia Director, Visual BASIC, Quark mTropolis, and C++. Discs, including DVD-R check discs, can be created with UDF formatting software. DVD-ROMs that take advantage of DVD-Video's MPEG-2 video and multi-channel Dolby Digital or MPEG-2 audio require video and audio encoding.

DVD-Video content development has three basic parts: *encoding*, *authoring* (design, layout, and testing), and *premastering* (formatting a disc image). The entire development process is sometimes referred to as authoring.

DVD Authoring is the process of collecting various content assets such as video, audio, photographs, subtitles and menus, connecting them together and then burning them to a master DVD disc. The assets can come from several applications. The most analogous comparison for DVD authoring is building a website. Menu screens are the main way to link keys features such as chapters within the main program, additional scenes not contained in the program and other content.

There are many DVD authoring packages. All the entry level DVD authoring packages will guide you through the complete process, from capturing to editing before finally converting and burning to DVD. Many affordable programs, such as Sonic MyDVD, offer simple interfaces and off the shelf menus.

Once the edited movie is entered into the DVD authoring software, it will create all the necessary files needed to create and burn a DVD. Be aware that there might be some compatibility issues with particular video assets that are used. Too, the

physical capacity of the DVD disc also needs to be kept in mind.

When producing a DVD, it is important to consider setting up chapters and picking thumbnails visual frames, each of which will help the viewer navigate when viewing the DVD. Producers need to think about where to place chapter marks — and what kind of verbal/visual list to have on the main menu. The best way to get a handle on this is to view other DVDs and see the solutions employed by other producers.

### Replication

Replication (including mastering) is the process of *pressing* discs in production lines that spit out a new disc every few seconds. Replication is done by large plants that also replicate CDs. DVD replication equipment typically costs millions of dollars. A variety of machines are used to create a glass master, create metal stamping masters, stamp substrates in hydraulic molds, apply reflective layers, bond substrates together, print labels, and insert discs in packages. Most replication plants provide *one-off* or *check disc* services, where one to a hundred discs are made for testing before mass duplication. For projects requiring fewer than 50 copies, it can be cheaper to use recordable discs. Automated machines can feed recordable blanks into a recorder, and even print labels on each disc. This is called *duplication*, as distinguished from replication.

### DVD Production Costs

Authoring and pre-mastering costs are proportionately the most expensive part of DVD. Video and audio must be encoded, menus and control information have to be authored and encoded, it all has to be multiplexed into a single data stream, and finally encoded in low level format. Typical charges for compression are \$50/min for video, \$20/min for audio, \$6/min for subtitles, plus formatting and testing at about \$30/min. A ballpark cost for producing a Hollywood-quality, two-hour DVD movie with motion menus, multiple audio tracks, subtitles, trailers and a few info screens is about \$20,000. Alternatively, many facilities charge for time, at rates of around \$300/hour. A simple two-hour DVD-Video with menus and various video clips can cost as little as \$2,000. If you want to do it yourself, authoring and encoding systems can be purchased at prices from \$50 to over \$2 million.

Videotapes don't really have a mastering cost, and they run about \$2.40 for replication. CDs cost about \$1,000 to master and \$0.50 to replicate. Laserdiscs cost about \$3,000 to master and about \$8 to replicate. As of 2003, DVDs cost about \$1,000 to master and about \$0.70 to replicate. Double-sided or dual-layer discs cost about \$0.30 more to replicate, since all that's required is stamping data on the second substrate (and using transparent glue for dual layers). Double-sided, dual-layer discs (DVD-18s) are more difficult and more expensive. ■