Article
Draft 2
The Future of Video Content Delivery
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Executive Summary
A revolution is under way in media. Traditional assumptions about broadcasting are forcing content owners and media content distributors to experiment. Innovations in business models, pricing and the packaging of content with different permissible rights represents a new frontier in marketing. While it's not possible to predict with 100% certainty the shape of the future media industry, it is certain that companies will increasingly use multiple approaches to reach different consumers and expand the alternative ways of acquiring contents.

Restructuring of the media industry and its traditional distribution channels ("conduits") will require the development of new infrastructure, new business intelligence capabilities and new integrated marketing approaches. A new key skill for media companies will be the collection, management and development of data and services for individual consumers. Today, most media companies separate the roles of production, DVD retail distribution, Internet distribution, and network syndication. These siloed approaches to managing the life cycle of content value capture are likely to be replaced by more integrated management processes design to maximize both the capture of value from consumers and the collection/use of customer interactions, ratings and involvement.

Three basic scenarios are suggested for the changing relationships between content owners, conduits and aggregators:

1. **Forward Integration**. In this scenario, large dominant media companies use their control of content to capture value that previously accrued to content aggregators and conduits.
2. **Balanced World**. In this scenario, aggregators are successful in creating sticky sites by developing capabilities and skills that are difficult for content owners to match. With control over eyeballs, aggregators remain successful and profitable conduits for content owners. The negotiating power of conduits and aggregators is lower because media companies have more choice in distribution (their own, aggregators or conduits).
3. **Churning World**. Decreased technology costs permit the continual emergence of new high quality content developers that can, as a group, challenge the traditional content developers. New content creating entities emerge. Some make the transition to major status. Some are acquired by traditional content firms and others by aggregators seeking to develop their own content and improve their negotiating ability with traditional content owners. Aggregators, content developers and conduits continue to merge and divest activities, but increasingly look similar in their portfolios.

Introduction
Technology change can begin in many places -- sometimes as a result of deregulation; sometimes as a result of a technology reaching sufficiently widespread adoption or new price level. Sometimes it is due to demographic and other usage changes.

Today, there are big bets being placed on the future of content and the business models around the creation and distribution of content. It's a hard area to make predictions about. Not because the trends are hard to see, but rather the structure of the market, technology, networks capacities and the usage pattern of consumers are changing rapidly. And perhaps most importantly, the market is increasingly less homogenous. Different consumers have different appetites for different content and for different ways of accessing, viewing/reading/listening to content. As devices, image quality, prices and availability change, so do the habits of viewers.

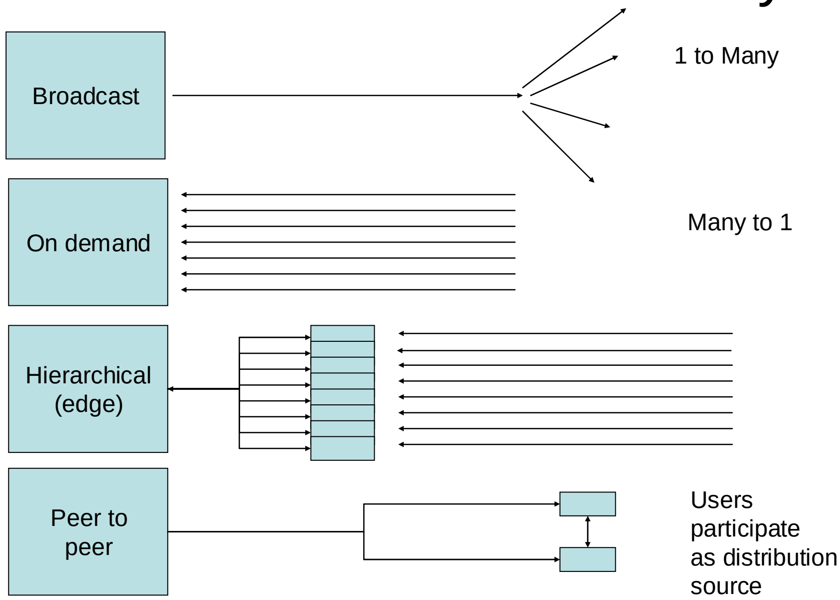
The changing world of content

	Historically	Today
Devices	Few	Many
Conduits	Few	Many
Portability	Impossible or rare	Pervasive
Content	Current + limited historical	Current + complete backlist
Meta content	Friends + reviewers	Friends, reviewers ratings, popularity
Complexity of ownership rights/equipment	Simple	Complex and non-standard
Ease of duplication	Time consuming	Easy

This article outlines frameworks and observations for looking at the evolution of aggregator, content and conduit industries. By *aggregator*, we mean companies that represent points of entry for accessing content. This group includes social sites, search engines and content directories such as AOL, Ask, Facebook, Google, MSN, MySpace and Yahoo. By *content*, we mean the producers of video, audio, pictorial and written content. *Conduits* include all the various digital and non-digital methods of connecting with a consumer of content, e.g. satellite, cable, terrestrial broadcast, wireless cellular, wireless broadband (wifi mesh networks, WIMAX), CD, DVD, and Internet downloads.

Within the many ways of bringing content to market, there exist different networking strategies whose importance is likely to evolve over time.

Architecture of content delivery



Because the media industry is so large, this article focuses primarily upon video which is the most complicated form of content to transmit and manage. Video files are large and present capacity management challenges; preventing or discouraging theft is an onerous problem; and, new technologies create a threat to advertising based business models.

Media companies wonder today whether the advertising or 30-second spot based business model is sustainable in a world of digital video recorders. DVRs (such as TIVO) have a dramatic effect upon advertising viewing habits. While there is debate about the rate at which DVRs will penetrate the TV viewing population, what is clear is that DVR owners watch fewer ads. Even worse, the longer a DVR is owned, the more ads are skipped by the household.

Sidebar

Key Dates in Digital TV

Date	Digital TV Transition
2007	Digital TV switchovers complete in Luxembourg, Netherlands, Finland and Andorra. Austria, Czech Republic, Germany, Switzerland in process typically with regional roll outs.
2008	US completely digital by Feb. 17, 2009. Beginning of digital TV switchover on a regional basis in UK. South Africa starts three year process.
2009	Denmark terminates analog TV
2010	Spain, Greece terminates analog TV at end of year
2011	Digital TV switchover completed in Canada except in remote locations. Japan terminates analog.
2012	Completion of UK, Hong Kong, Ireland, Slovenia, Italy digital switchover
2013	Beginning of New Zealand switchover to be completed by 2017
2015	Chinese, Kenyan, Malaysia, Philippines, Ukraine digital switchover completed

Sources: Various including Wikipedia, UK Government, FCC, CRTC.

As a result, the impact of digital delivery of media leads to the question of what business models will be most important in the future for content delivery. *Our view is that companies will have to manage a more complex portfolio of business models and develop more sophisticated ways of integrating their view of individual consumers.* Roughly speaking there are five basic forms of revenue models that will emerge or which can be bundled together:

1. **Traditional advertising based models**. (Examples: classic network or cable TV)
2. **Fee-based models** for one time viewing or viewing for a period of time, unbundled from subscriptions. (Examples: video on demand, Pay-TV, single viewing downloads, downloads valid for a narrow viewing time slot.)
3. **Subscription models** analogous to current cable or satellite tiered services. (Examples: premium cable subscriptions, satellite subscriptions, Netflix, music subscription services)
4. **Product placement, sponsorship and brand integration models** sometimes combined with other economic models. (Examples: various soap operas or drams financed by e.g. Procter and Gamble or Hallmark, combination network TV shows financed by product placement and advertising.)
5. **Purchase models** which include a variety of portability, versioning and resale rights. (DVD purchase, download purchases.)

These revenues models can more broadly be thought as a collection of pricing models, rights granted to consumers and services around the purchase, use, storage and management of the rights. *Rights represent a new frontier in content marketing* and can include:

1. Right to view on one or more devices
2. Right to save
3. Right to redownload to one or more devices
4. Right to transfer ownership
5. Right to share with a designated group e.g. a family
6. Right to upgrade to a new technology or quality
7. Right to resell
8. Right to receive a commission on referral leading to resale

The marketing of content with attached rights management is likely to be controversial among consumers accustomed to the current simpler legal environment.

Examples of Rights Based Marketing Alternatives

	Audio Books, Podcasts	**Music**	**DVD Video**
Right to view/listen on one or more devices	Audible.com permits multiple devices and formats	Assumed. Consumers move music from CD/Vinyl to tape/MP3	Consumers can view DVDs on any device that plays DVDs e.g. computers, DVD players, or networking video devices such as Slingshot

Right to save	Part of delivery methods	MP3 can be backed up. CDs can be copied for personal use.	Consumers can back up a copy of a DVD for personal use.
Right to redownload	Audible audiobooks permits redownloading of audio books.	Available on some subscription services. Not availale on iTunes.	Movies on Amazon unBox can be redownloaded.
Right to transfer ownership	Generally not permitted	CDs can be sold. MP3s currently more difficult to sell without owning associated CD.	Generally not permitted
Right to share	Possible by sharing account access. Legality unclear.	Music can be shared with a group of friends in ways that are both legal and illegal.	Copying for friends generally not legal. Lending content provides a low tech way of sharing.
Right to upgrade to new technology or standard	Download options on quality can be reset but there are limitations.	Without a source file e.g. .wav file from a CD, no upgrade is typically possible. The option to upgrade to a higher quality resolution or video standard is normally treated as a separate purchase by content owners e.g. vinyl to CD, CD to MP3. MP3 low quality bit rate to audiophile bit rate.	Generally requires a new purchase. No major current examples of a content upgrade strategy that would parallel software companies offering upgrade pricing.
Right to resell	Not generally permitted.	CDs can be sold. MP3 licenses could permit resale and transfer of ownership.	
Right to receive commission on resale or referral	Generally no	Generally no	Generally no

It's likely that as users become educated about the rights bundles attached to different ways of acquiring media, different consumers will evolve different buying patterns. For example, less technologically sophisticated users and audiophiles still prefer to buy music and video on optical data media such as CDs and DVDs. Slightly more sophisticated technology users may find the integration of a music/video downloading service and device more attractive until they get annoyed at the difficulty of moving content or the lower quality of many digital media. More sophisticated digital downloaders will discriminate on the basis of absence of rights restrictions and higher quality. For example, Amazon's MP3 music offering offers both a DRM and a price advantage over the brand leader, the iTunes store.

Confusingly, while consumers may evolve their preferences over time, they will likely to continue to trade off rights against price inconsistently, based upon their involvement or interest in the specific content.

Deregulation of Access Increases Consumer Choice

The world of content owners, aggregators and conduits is a complicated one. It's hard to generalize about an industry that covers movies, videos, TV, DVDs, portals, on-line retailers, auction sites, search engines, DVD rental, cable networks, broadcast and satellite networks, local TV stations, radio stations, satellite radio, personal computers, MP3 players and game machines. A person's brain quickly starts to hurt with the complexity of all the choices and potential ways in which devices, networks, sites and content might interact.

But one fact sticks out like a sore thumb. The world of content and conduit has changed irrevocably. *We have moved from a world where accessing content was difficult and controlled by a small number of highly regulated players to a world in which choice has exploded. Not only is the availability of content greater, there are more ways of accessing and more devices for using the content.* And if we can say one thing about the future, it is that the ability to access content will get even easier.

We can call this new deregulated world, the world of Megachoice. Megachoice poses certain obvious problems for content marketers. How do you keep the attention of consumers? How do you brand and differentiate your content? How do you build relationships with consumers to ensure high rates of repeat purchase and cross selling? How do you enlist consumers as sources of referral in a world where the number of solicitations for referral and ratings runs the risk of being as annoying as market researchers on the phone?

Today you can see a movie in a movie theater, be certain that within a short and decreasing period of time you will be able to see the movie again via video on demand (VOD), Internet download or DVD rental or purchase.

You can download music from multiple music sites (e.g., iTunes, Urge, Amazon, eMusic, Rhapsody, Starbucks/Apple, Universal's planned Total Music, cellular service operator sites or joint ventures) or you can purchase it on DVD from multiple sources (e.g. Amazon, Barnes and Noble), or you can rent music from businesses that offer subscription services e.g. Rhapsody, Urge.

So from a consumer perspective the result is typical of a deregulating market: *more choice*. And not only can you access more *current* content, an entire *backlist* of past content is pretty much guaranteed to be available. Examples of choices that consumers can make today include:

1. See the movie in the first run theater or see it at home via DVD rental or purchase.
2. See the movie at home via video on demand from satellite, cable, telephone company or streaming Internet access.
3. Select a level of quality for viewing a movie e.g. for a mobile video device such as a digital music/video player, on a computer, on a TV with standard definition or on a high definition TV.

4. Rent, purchase new or purchase second hand.
5. Choose a format with varying degrees of portability.
6. Purchase a version with advertising or without.
7. Purchase a version with or without digital rights management.
8. Purchase different rights to multiple downloads to one or more computers.

The inevitable consequence of more choice is that there will be more potential marketing, pricing and digital rights strategies which will have different degrees of appeal to different segments of the market. For example, one recent study by Microsoft and Starcom suggests that 10-15% of adults 17-35 in the US could now be characterized as advertisement avoiders. Clearly, this segment is more predisposed towards non-advertising based versions of content or content where advertising can be skipped (which will presumably in the long run, threaten advertising business models).

Just as in other areas of retailing where consumers will shop at both at high end and discount stores, consumers will likely continue to select media with different economic bases. A low involvement video may be acceptable to a consumer with advertising. A high involvement video may end up being seen in the theater, rented *and* purchased.

Conduits' role in the content life cycle

Theater	TV Satellite Cable Hotels	On-line retailers Netflix/movie rental stores Bricks and mortar retailers Content owner portals	TV Satellite Cable Content portals	PVRs DVRs Videocassette Media computers Device vendors Hard drive vendors	Amazon eBay
Theatrical release	Pay-TV	Purchase physical rental or download	Advertising supported distribution	Time delayed viewing. archival storage of stored content	Purchase or loan of second hand content by consumers

In the music distribution business, we already see price competition emerging between Amazon and iTunes. But there is also business model competition with download models, subscription models and combination device/download or combination device/subscription business models and partnerships emerging. Amazon has considered a cell-phone like MP3 economic model where in return for a two year subscription, consumers would receive a "free" MP3 player.

Another consequence of the increased availability of consequence is likely to be a reduction in average prices in the market. We see some signs of this trend in a number of markets:

1. The average price of movies has dropped significantly as move distribution has moved from videotapes to DVDs to downloads. While downloads tend to be less expensive than the purchase of a DVD, the quality is typically lower. One could also argue that the current slow speed of download also currently detracts from the overall experience, at least in the US where bandwidth speeds lag more developed markets. The niche marketer, Jaman.com which distributes rentable or purchasable international content offers rentable movies at $1.99 and purchased copies at $4.99.
2. The average price of music has also dropped and is likely to continue dropping. In October of 2007, Radiohead received wide publicity for a decision to make its next musical album available at a price determined by the downloader. One could call this "guilt marketing" and draw analogies to public television and public radio fund raising. Or you could see the initial music release as a loss leader to attract listeners to concerts, where they will purchase tickets and physical goods. Enthusiastic audiophile fans may also purchase higher quality versions of the music when released on optical media. In some cases, digital downloads of audio books are less expensive than purchase of actual books on Audible.com, the current major site.

Implications

Branding

In a world of Megachoice, content owners face many of the problems that have been experienced by the book publishing business for years. Do you market an individual book? Do you market an author? Do you market a series of books by an author? Do you market a brand or imprint?

In book publishing, authors tend to be "brands". Some authors write "series" books with similar formulas and characters. Some author write within genres (mysteries, science fiction, romance). Some authors write series (e.g. Tolkein's *Lord of the Rings* in three volumes with *The Hobbit* as a prequel.)

Very few publishers have been successful in developing brands where the buyer buys the brand rather than the author. Harlequin Romances is one of the few exceptions to the rule. The closest analogy in video are TV series brands which have spawned a series of video offshoots, e.g. CSI in its three versions, Law and Order variants, Star Trek.

In a world of digital video content, branding is likely to take place at multiple levels. There are clear economies of scale and scope from having a successful destination portal. All the major networks are establishing major on-line presences in order to create destination portals e.g. Hulu.com . The high valuation of aggregators such as Google, Yahoo, MySpace or FaceBook makes a media portal look like a low risk way of adding to shareholder value for a media company in addition to increasing the leverage they hold over conduits and aggregators. Many networks have insisted that Google's YouTube remove their proprietary content in order to force viewers to visit their own network portal sites.

The motivation for content owners to integrate forward and develop their own brand is clear. Branding a portal offers some significant advantages.

- First, it simplifies accessing content for viewers.

- Second, it allows the creation of an advertising driven portal that substitutes for more traditional delivery methods.

- Third, the flexibility of portals provides more opportunity for content experimentation particularly for series content. In many industries increased competition leads to margin erosion and pressure on distributors; similar pressures in media will increases the pressure to eliminate non-value adding layers in the channels of distribution.

But as with most fragmented markets, different content owners may take different distribution strategies. In 2007, CBS has chosen a strategy of distributing contents on over 21 sites. CBS management's rationale is that they are in the "eyeball business". The more eyeballs they reach, the more they can charge for advertising. The challenge for an "eyeball" strategy is to be able to manage and report on multi-site campaigns in order to sell to and meet the needs of advertisers. The value added for CBS will come from a mix of content creation, campaign selling and management tools and the development of viewer profiles.

NBC and Viacom have chosen to create a joint site to create a major destination for viewers. Long term, NBC and Viacom may view this portal as a transitional business strategy. Comcast has realized the need to have an Internet presence and is developing a non-cable based content site. And in perhaps the biggest validation of this trend, Time Warner transformed AOL.com from a walled garden, or subscription strategy, to an advertising supported open content site.

Revenue Creation

One obvious economic implication of increased availability of content is that the traditional model of scarcity marketing has gone by the board. The entertainment industry worried a great deal about the cannibalization possibilities of videocassettes until they realized that videocassettes expanded the size of the market for video. The same conclusion was reinforced with change in technology to DVDs. By 2005, DVDs accounted for 59% of movie studio revenues (Edward Epstein, *Hollywood's Death Spiral*, August 1, 2005, Slate Magazine)

At least one study has suggested that simultaneous release of DVDs and theatrical releases would increase revenues to content owners by as much as 16%, and drop revenues to theater owners by as much as 40% (Reference: Henrik Sattler, Felix Eggers, and Mark Houston, *The Last Picture Show? Timing and Order of Movie Distribution Channels*, October, 2007, Journal of Marketing.)

As so often happens in business, we now hear the same concerns about digital downloads of movies. However, it's reasonable to speculate that:

1. There is an upper limit to the amount of time that individual can devote to entertainment so obtaining viewing is likely to be at least as great a problem as in the past and probably a more difficult task.
2. Introducing digital ownership of content creates a management problem for consumers that is roughly analogous to being a small IT department. When you own lots of content, whether it be books, cassettes, vinyl records, CDs, DVDs or downloaded files, the heaviest content consumers will find that
    a. They don't have enough space to store physical artifacts.
    b. Maintaining and backing up downloads can become an enormous chore and the loss of downloaded content can become an expensive event. A family might easily have acquired several hundred DVDs worth $1,000-2,000 at second hand prices of $8 per movie and more if purchased new. And it is not unreasonably for a music enthusiast to have 10,000 pieces of music in his collection, worth about $9,900 at current iTunes pricing and $8,900 at Amazon pricing (as of late 2007)
3. If the price is low enough, consumers will acquire content as insurance against future periods of boredom. Not all of the content will end up being viewed in the same way that all of us have bought books that we intended to read, but never did. Audible.com has a very clever strategy of featuring a book every 2-3 days that is so low priced that a heavy user of audio books is highly incented to purchase and accumulate audio books in advance of need. Audible needs to compete against physical books in its pricing and also to pre-fill MP3 devices to capture spending before the user experiences a book buying opportunity.

One to One Marketing

With the market for content becoming more fragmented, content developers will increasingly want to know more about their consumers. Traditional sampling techniques for measuring audiences will become increasingly less useful. There are at least three economic reasons motivating the desire to develop information repositories at the level of individual consumers:

1. Maximizing the capture of the value created for consumers means reaching consumers when the content has the most value e.g. first release for a movie, or when a piece of music is popular or promotes a concert series. It also means understanding the consumer's life cycle relationship with the content. A consumer that likes a movie a great deal might want to leave the theater with a DVD or a discount coupon to download a personal copy of the film or a gift certificate for that relative that "has everything".

2. As in book publishing, repeat sales of a video series (whether movie sequels or a multi-episode format) leads to higher profitability and lower marketing costs. Knowing who saw and enjoyed content creates revenue opportunities for series and sequel selling.
3. Knowing the taste of consumers and the status of their inventory of purchased content makes the development of new material and cross-selling of content more likely to be successful. We already see such exercises being done on an individualized basis by firms such as Amazon and Netflix. Another example of the personalization of content are new classes of smart Internet radio stations such as Pandora.com which will create personalized music streams based upon music similarity.

Repositories

It's no surprise that the major portals are all attempting to develop repositories of information about their users. Whether you are a retailer like Amazon or Barnes and Noble, a search oriented services such as Ask, MSN, Google or Yahoo, a content aggregation site such as Yahoo or AOL.com, a distribution site such as Netflix, the information you collect about consumers represents an advanced form of profiling that can be used for either for "shameless selling" to consumers or helping consumers find content that they will enjoy, depending upon your mission. What has been less predicted is that conduits such as telephone, satellite and cable companies should be able to develop individual profiles on viewership and preference that is very specific to content viewing habits and taste preferences.

If you consider the rate that viewers change channels, skip or speed through commercials, the amount of data generated will rapidly create some of the largest information warehouses in the world.

Rough estimate of sizing of channel switching behavior database

	US	Total World
Number of TV households	110M	1.1B
Average hours of TV per day	4	4
Shows and ads per hour visited	3 shows, 40 ads and information spots, 40 product placements	3 shows, 40 ads and information spots, 40 product placements
Days per year	365	365
Records collected per year per household	40T	400T
Data collected event	Household identifier Time in Time out Channel Content ID e.g. show number, ad number	Household identifier Time in Time out Channel Content ID

Total data elements	200T	2000T

Note: assume that household identifier does not have to be repeated and ignoring minor data fields such as contact information. Estimate also does not include follow-up click-throughs or related search/behavioral information. (M = million, B = billion or 100 million, T = trillion or 1000 million)

Privacy

An emerging trend in consumer portals is resistance to behavioral tracking and targeting. Search engines have been forced to make more explicit their data retention policies and the topic is unlikely to go away.

Future strategies will likely need to turn tracking into a user-controllable service that is perceived as value creating for consumers and which will encourage opt-in. Such an approach will be less likely to attract the concerns of privacy watchdogs and regulators, particularly in Europe.

Pricing Strategies

Pricing is an area where we predict further innovation. We have identified already that different rights strategies represent a new frontier in marketing. But in addition, successful content owners and distributors need to experiment with more pricing/rights combinations. NetFlix's launch strategy represented a brilliant example of how changing the economic relationship between consumers and content owners/distributors can create brand new businesses. Fixing the total cost of ownership to the consumer removes an enormous annoyance to consumers; it also represents an effective price reduction to consumers who would otherwise have incurred late fees. Another way of thinking about the problem is that fees paid to a content owner have different degrees of perceived value creation. A rental fee is perceived as fair. A late fee may induce a more emotional reaction. Like many ethical strategies, Netflix increased the perceived value of its service by putting itself in the shoes of its consumers.

In China, media companies have had to deal with pricing issues and piracy. With only the income levels of a developing country, Chinese consumers historically purchased illegal copies of films. By dropping the price and competing on quality, media companies have regained market share against pirated versions.

As bandwidth speeds improve in the US, it is likely that theft will become a larger problem. Response to the transition will likely include:

1. Significantly dropping the price of content in order to gain volume.
2. Selectively lowering the price of content for lower resolution versions of content with more limited rights e.g. standard definition TV resolution with limitations on storage and ownership to target more price sensitive demand.
3. Offering bundled access to content to increase the share of spending and viewing time. This approach offers simplification of purchase and lower average cost and is being used in the music distribution business by firms such as Rhapsody and Napster and device vendor, Nokia.

4. Eliminating layers of distribution in order to minimize margins obtained by non-value adding or non incremental audience creating distribution.
5. Loyalty based pricing where cumulative purchases affect individual content purchase prices.
6. Direct sales models where purchase of content can lead to income from referral and direct sales activities.

Campaign Management

In 2007, major portals such as Google, MSN, and Yahoo have made significant investments in ad server companies such as DoubleClick, eQuantive and Right Media Exchange.

The trend is clear: content based sites with economic models based upon advertising are more complicated than traditional TV advertising and the supporting infrastructure and tools for linking information across different kinds of media and sites will have to be more capable. The ability to target will be increasingly refined and permit micro campaigns. The reduction in cost of micro-campaigns will increase the number of advertisers and advertising campaigns, something we have already seen with paid search marketing (e.g. Google AdWords, Yahoo's Overture) and with cable companies advertising programs that permit low cost advertising based upon head end household reach.

At the same time, campaign analytics will require more flexibility to analyze vastly more complicated campaigns that stretch across media, web sites and portals.

Technology Implications in the Home – the Terabyte+ Household

From a networking and storage perspective, the most demanding content in the home is video. Video is large. A large music collection of 10,000 songs would run around 100 gigabyte at maximum MP3 encoding level of 320 kilobit per second or roughly the equivalent of 25 standard definition movie files (though an audiophile might well store the actual .wav files, which are typically 4-5X larger).

In contrast, a typical 90 minute film in standard definition runs in the range of 1.2 gigabyte to 4 gigabyte in SD (standard definition) depending upon the target screen size and quality. High definition (HD) video at around 9 gigabyte is so large that it is unlikely that most deployments will permit more than 3-4 simultaneous HD video channels in a home.

The good news is that the size of video files has historically made video piracy more difficult. But in leading edge markets such as Korea or Japan, faster networks are more available and cost significantly less than in the US. So, this temporary bottleneck will not protect content owners in the future.

Just as importantly, it does not take a large movie collection to start filling up a DVR (digital video recorder) or hard drive attached to a media computer/game machine. In effect, households are becoming mini-IT departments with all the resultant problems of access, backup, rights management and content sharing.

These scaling problems represent significant opportunities to increase usability and integration. By providing services around rights management, there are opportunities to graciously transform DRM from a perceived restriction to a service offering, i.e. we will back up or store content to which you have rights, or to put in other words, “You can re-download your content when you need it again, so you don’t need to back it up or fill up your hard drive.”

Content Development Implications

The world of Megachoice suggests one key change will be critical: the importance of quality will increase dramatically. Quality is a loaded term in entertainment programming. One person’s favorite programming is another person’s “junk” TV. So quality is always particular to an individual, their taste, their device, their expectation about resolution, portability and rights. Assumptions about uniformity of taste and expectation are likely to cause content developers, owners and distributors to miss opportunities.

Tools that allow repurposing of content, change in resolution provided or device supported, addition or subtraction of legal rights, dynamic testing of product/rights/performance/services will require new sophistication for media companies and central tracking of relationships with individual customers.

Strategies for Content Owners

In a world where content owners are attempting to figure out what will be of interest to consumers, media companies appear to be experimenting with different ways of building momentum for series video such as TV series.

Dramatic shows with story arcs have become popular over the last decade. Some of the most important dramatic television – shows such as The Sopranos, The Wire, Six Feet Under, Rome, Lost, Grey’s Anatomy, Heroes, etc. can lose viewers who have been unable to regularly follow the story arc on traditional TV. Late arrivals to a series can often go out and rediscover the early seasons via DVD, video on demand (VOD) or downloads, but for current, “in progress” series, networks have experimented with allowing viewers to catch up on the early episodes in a season, or to finish off a season that has been cancelled in prime time. The lower costs of release on a portal and the lower opportunity cost allows for different economics than the scarce resource assumed in an over the air broadcasting model.

Some competitors have realized that the traditional model of Spring “Upfronts” (pre-buys of advertising in the Spring for the Fall new season) is only one alternative release model and launch new shows at different points in the year.

Strategies for Conduits

The three scenarios introduced in this article produce different pressures for conduits.

In the *Forward Integration* scenario, content owners, which tend to be large and powerful companies will put pressure on Conduits. With more conduits competing for content, margins for Conduits is likely to be reduced and some conduits will be forced to merge or go out of business.

In the *Balanced World* scenario, content owners will have successfully pursued strategies where they offer services that are difficult for Content Owners to match. By having sticky services and a better profile of viewers, they may be able to base a strategy upon service stickiness and the better repository of behavioral information that Content Owners will have less skill and opportunity to match.

In the *Churning World* scenario, high rates of innovation could lead to a new source of content that could give birth to new content companies, but ones that don't have the muscle to set up broad access to consumers. This new category of "amateur" content developers will likely have to be much more professional and ambitious than the relatively short user-generated material on current user video sites. Aggregators and Conduits could use this new wellspring of content to construct alternative programming portals. But it is likely that Conduits and Aggregators will find, as many have before, that creative talents able to create blockbuster successes are a scarce resource and likely to become more scarce in a world where quality is increasingly important.

Strategies for Niche Players

One of the rules of economic geography is that small markets support few niches and larger markets support many niches. Content is, of course, no different. Given that the Internet expands the reach of a content provider, it's likely that video content will increasingly resemble the book business with new featured content ("Best Sellers"), series publishing, genre publishing, and back list (sometime referred to as Long Tail asset) marketing.

A limited form of genre publishing has even slipped into network prime time with current networks developing a positioning around police procedurals (CBS), relationship dramas (ABC), legal dramas (NBC), and TV targeted at younger and minority viewers (CW). Specialty cable channels have pursued theme programming with varying degrees of commitment and it is likely that the greater flexibility of video on demand will increase the importance of branding, pyschographics, taste mapping and prediction at an individual level.

Forward integration – Content Owners Build the Portal Brand

An argument for forward integration by content owners is that in a world of Megachoice, a portal is like shelf space in the consumer's mind. Consumers will likely only visit a limited number of portals and portals will have stickiness that will keep viewers at the site or cause them to bookmark or download inventory for later viewing.

A second argument for forward integration by content owners is that if increased supply of content and cross-content competition drives down prices, pressures on margins will cause the elimination of content distributors (conduits and aggregators) where the margins of the distributor exceed the value created.

A third argument for portal ownership is the increasing importance of creation of relationships with and information about consumers. In a world where advertising revenues are at risk, alternative economic models such as click through revenues for viewers following up on product placement or advertisements offer a potentially significant revenues source. Google in 2006 averaged approximately $1.52 per click through for consumer products under $100. The traditional 30 second spot revenue for an advertising model works out at about 2.1 cents per user in prime time. If networks with their content power can create click through models with the same success as Google, even a low click through rate can compensate for ad skipping.

Portals, in effect, become similar to the traditional prime time network with syndication a manageable option that can be done in parallel or sequentially depending upon the best value capture. In some situations, making content available at many sites may be economically preferable and technologically more feasible (if bandwidth is a constraint or reach is the key issue). In other situations, proprietary content acts to pull consumers to the site for the premium content and allows the site to keep viewers at the content owner portal.

Backward Integration – Do Conduits Build Content Empires?

For many traditional conduits, the threat of forward integration has forced them to consider whether they should be in the content business. Comcast considered purchasing Disney. Terry Semel, former CEO of Yahoo was brought in for his Hollywood connections. Google has been forced to pay for some of the news content that is aggregated on its site.

The issue for these firms is (1) Can they provide services that are sufficiently attractive to make their sites sticky enough to make them attractive redistribution or referral sites for content distributors? (2) Do they need to develop or acquire proprietary content? Google recently announced a joint venture with Nielsen's to improve reporting on advertising viewing, an example of using value added services to differentiate its capabilities and network from aggregators that only sell eyeball access.

Horizonal Integration – Integrators Offer Eyeballs to Content Owners

Again looking for parallels in publishing, even if content owners deliver directly to consumers, there is still a role for "selectivity". One buys *The New Yorker* magazine for the editorial talent of the magazine. It is far easier to delegate the responsibility for content creation to an intermediary if one is busy.

While the new functionality of the Internet gives choice to those that want it, the role of intermediaries, reviewers, aggregators, web mavens and ratings is to simplify choice. These intermediaries are the 21st century equivalent of book, music or film critics and editors. (Alistair Davidson and Jonathan Copulsky, *Managing Mavens*, Strategy and Leadership Magazine, 2006)

Packaging Strategies – Packagers Build Device/Content/Conduit Packages
In a world of Megachoice, some consumers will be overwhelmed by the choice available. Many consumers find the emerging digital living room complex to understand, complex to buy, complex to install, and complex to use. Apple has taken the view that ease of use and pre-configured products and services makes adoption easier. Over time, we can expect more vendors to follow Apple leading in pursuing high degrees of integration and to reduce usage complexity. This shift in performance towards the ease of use expected by consumers will be a continuing area of challenge. Strategies that can be expected to emerge include:

1. Bundled products and services, e.g. Apple, Microsoft Zune, cell phones with video capabilities and attached services.
2. Families of integrated products and services, e.g. Xbox, Zune, Vista; Apple iPod, iTunes, Macintosh, iTV.
3. Standards based products and services e.g. MP3 music services without DRM.
4. Products and services focused on bundling capabilities into a single product to reduce complexity to consumers.
5. Open source, open content, open device combinations e.g. Gutenberg project to provide free copies of off copyright material; similar projects exist for audio books.

Viral Strategies
A current flaw in most digital models is that one of the most powerful mechanism for creating sales – recommendations from a satisfied content viewer -- is largely ignored as a sales channel.

The primary reason for not harnessing peer to peer recommendations seems to be the absence of a cost effective micropayment infrastructure coordinated with digital rights management (DRM). However, as the content explosion increases choice, distribution models based upon referral may become exceptionally attractive and the next generation of social networking. A secondary driver here will likely be pressure from writers seeking remuneration for reuse of their content on new digital media.

Financial Strategies: Own Content vs. Syndicate Risk vs. Consumer Financing of Project

It's likely that some content owners will be unable to establish a destination quality portal. For these content owners, the availability of aggregator portals with many eyeballs will remain attractive and represent a way of raising funds or syndicating risk.

Large portals may from time to time want to syndicate the financing and distribution of large or risky projects in the same way that European TV networks may cooperate on content development with a US network.

Perhaps more interesting is the idea that disintermediation could emerge for cult video content. Under such a scenario, addicted cult-like viewers might choose to purchase content in advance of creation in return for the psychic satisfaction of prolonging a series, otherwise unfundable, in return for a lower price on the eventual release, or even for profit participation.

Capacity Management

No matter what the technology, it always seems that demand is greater than capacity in telecom. A critical issue in the world of Megachoice is the problem of blockbusters. It's unlikely that any one major content vendor will, in the near term, have enough capacity to handle the demands of extremely popular content. Imagine for example that a content owner wanted to make available a blockbuster piece of content digitally in HD to 500M homes internationally. While time zones would provide some timing advantages, it's likely that server and network capacity might have to be rented with third parties. If advertising sponsored, there are likely to be additional constraints on tracking viewer data.

A number of capacity strategies are possible:

1. Design capacity to handle an average volume of transmission.
2. Rent peak capacity to preserve purchase, rental or advertising revenues.
3. Distribute from multiple sites in order to maximize the value capture within a narrow time window.
4. Use differential pricing to manage capacity effectively. This strategy is a traditional phone company and utility strategy, but it has not yet been widely adopted in media environments. One could envision using auctions to get privileged access to popular content or differential pricing based upon capacity availability on an actual or predicted basis.

In other high tech markets, vertical integration has been replaced by horizontally dominant competitors. With computers, different companies dominate different components of the personal computer.

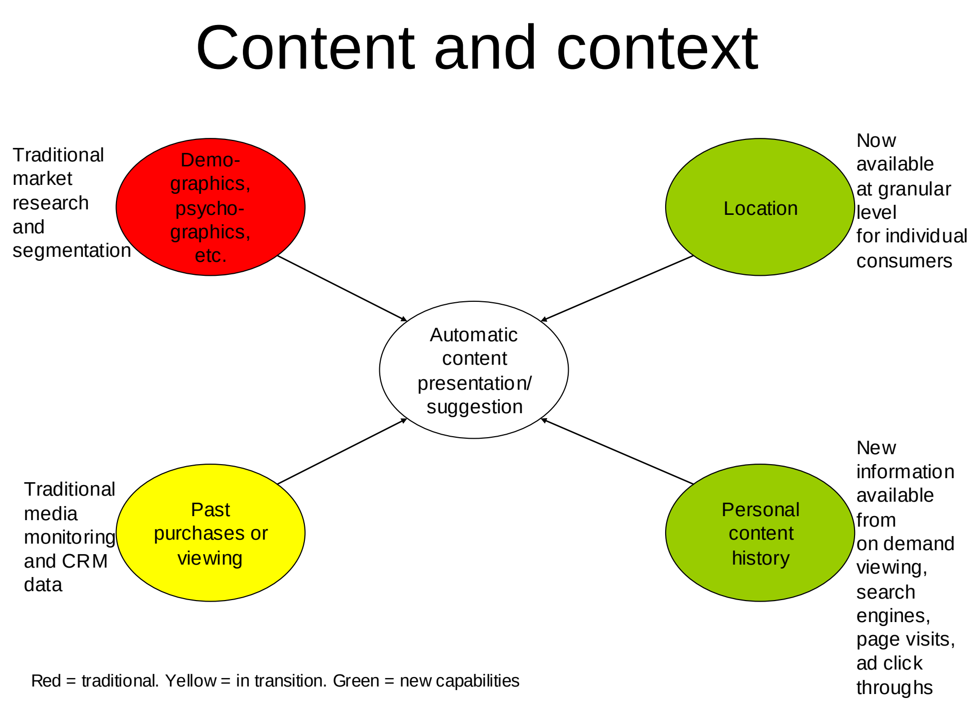
Category of value added	**Dominant Player (s)**
Microprocessor	Intel, AMD
Operating system	Microsoft
Hard drives	Seagate
Graphics boards	AMD/ATI, nVidia, Intel
Routers	Cisco/Linksys
PCs integrators	HP, Dell

In the world of networked media, companies are attempting to pursue similar horizontal strategies. One can characterize the layers as follows:

Category	**Major Players**
Content development	Disney, NBC/Universal, CBS/Viacom,

	News Corporation/Fox, TimeWarner
Aggregators	Content owner portals, search engine and directory portals, user generated content portals, social network sites
Content serving services	Akamai, Brightcove, Google (predicted)
Major transmission owners	Cable companies, satellite companies, IPTV networks owned by telcos, Google
Owners of last mile or mobile connection	Cable, telcos, electrical utilities, bandwidth owners, cellular companies, metropolitan wifi connections, Wimax networks
Content/ad viewing tracking services and ad tracking/serving	Google/DoubleClick, Microsoft/eQuantive, Yahoo, CBS, Nielsens,

Summary: Decisions, Decisions, Decisions
Strategists in media companies are dealing with a massive change in their industry. There are, as a result, no magic bullet decisions but rather a series of decisions that need to be made and managed over time as technologies and installed bases change. Common to all the likely decisions is the need to increase the granularity of information about customers in order to create appealing support structures for making the life of individual customers easier.



The basic approach will likely be:

1. To understand the economics of the distribution chain. Where are profits being made? What is the value of the intermediary role? What strategies are dependent upon the intermediary? Where can the intermediary be eliminated?

2. To build, rent or partner to create capacity to deliver different business models.
3. To develop, acquire and use highly granular information about individual customers' preferences, behaviors and usage.
4. To understand where distributions and partnership deals are test beds, short term volume builders or long term relationships. A strategy of simplicity such as Apple's 99 cent music pricing will inevitably change to a more complex pricing model as significant competition emerges.
5. To run series of experiments in business models and content packaging to understand the changing preferences, installed bases and habits of customers.

Author

Alistair Davidson is a strategic and marketing consultant who has extensive experience in software development, high tech start ups, and working with companies in markets with changing technologies and business models. He is the former CEO of a number of startups including firms developing strategic planning tools, new product success prediction tools, market simulation, new media advertising tools and exchanges. He has been responsible for developing more than a dozen high tech products including first of breed products and commercializing them internationally. He has an undergraduate and MBA degree from Harvard, is the author of three books on strategy and technology and is a trained facilitator. He has worked with telecom, communications equipment, financial, media, new media, publishing, high tech, healthcare and government clients. His business web site is www.eclicktick.com and his personal web site is www.alistairdavidson.com .