

THE P2P REVOLUTION

Peer-to-peer networking & the entertainment industry

A free-to-distribute white paper by Scott Jensen

"P2P is permeating almost every edge of the internet and touching everything from entertainment to business applications. Until now, though, the biggest challenge for the concept has been making money with it. Scott Jensen offers a crafty, and viable model for making P2P a business and for business to make P2P a model."

Hassan M. Fattah, *P2P: How Peer-to-Peer Technology Is Revolutionizing the Way We Do Business*

"As a web hosting provider and multimedia producer, my business has struggled with how to embrace P2P technology since its popularization. Scott Jensen's research on this issue not only provides valuable insight but will assist us in future decisions regarding these systems and how we choose to make use of them."

David B. Lawson, President
The Firstlight Group, LLC
www.firstlighthosting.net

"Love it or fear it, the future that Scott Jensen outlines in this paper is compelling. Person-to-person file sharing is here to stay, and it has implications right across the culture industries. If you work in that sector, ignore his white paper at your peril."

Dr. Toby Miller, *Global Hollywood*

INTRODUCTION

This white paper is about the future of the entertainment industry. The future will be revolutionary in nature because it will overthrow the current “regime” that exists in that industry today. It will be the biggest thing since the introduction of television.

However, the logic used to reach the conclusions of this white paper isn’t revolutionary. It is pragmatic and reality-based. It can be arrived at using simple common sense. It is also inescapable.

The white paper itself was commissioned by a client of mine who wishes to remain anonymous. When I was originally doing the research for it, I was not planning to release it to the public and thus didn’t write down all the sources I used to come to my conclusions. My clients trust me to have done the research and I know they never read the bibliographies I have included with white papers in the past. This is the first white paper that a client has ever allowed, with appropriate modifications, to be publicly released. Now, I could have spent a lot more time and backed up every conclusion I’ve made here with evidence, but, quite honestly, I’ve only been paid to deliver it in its usual fashion to the client. It would also have made this paper even longer (basically book length) and any evidence I did give probably wouldn’t do much to persuade those that disagree with my conclusions, as I’m sure they could find counter-evidence that they consider more believable if they so desired. What I will say is that I stand by all my conclusions and feel confident that time will prove me right.

Oh, and one last thing: I’ve tried to keep all computer, marketing, and other technical jargon to an absolute minimum so the average person should have no problem understanding the contents. This white paper is meant for everyone – from professionals to academics to laypeople – with an interest in the future of the entertainment industry.

Let’s begin.

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PART ONE

THE CURRENT TURMOIL

There is currently a lot of activity in the entertainment industry to try and stop piracy of movies, television shows, computer games, novels, music, and other forms of data entertainment. Data entertainment is any entertainment that can be stored in a digital format – such as a computer file – and perfectly replicated simply by copying that file. Novels and movies are data entertainment; live theater isn't. However, DVDs of live performances *are* data entertainment, although the experience is different. Live theater isn't exactly the same each time. DVDs of live theater are.

To prevent the piracy of data entertainment and the loss of profits it represents, different elements of the entertainment industry have tried to use copyright laws and lawsuits to stop and discourage data pirates. Napster probably represents the biggest victory to date for this reactionary element of the entertainment industry. Unfortunately for the reactionaries, the toppling of Napster didn't stop data entertainment piracy at all. It didn't even serve as a speed bump on the road and very likely helped promote further piracy by informing the masses that data entertainment could be obtained free via this method.

Presently, the reactionaries are trying to go after other Napster-like for-profit corporations. Kazaa is the reactionaries' current prime target. It wouldn't surprise me at all if Kazaa also falls to the reactionaries' onslaught. However, the waters are still untested for taking down a non-profit that merely facilitates file sharing over the net. Even more untested is what the public's reaction will be when the reactionaries attack average citizens who volunteer their programming skills to improve file-sharing programs or share only a few files. It will only take one sympathetic target coming under attack, one martyr, to make the public turn against the reactionaries. One poorly chosen target by the reactionaries could lose what little public agreement they currently have on this issue. And note I said "public agreement" and not "public support". As for public support for financially ruining and/or imprisoning people who share files over the net without asking for money in return, the reactionaries know they essentially have none. And if they don't lobby for this extreme (making the "offense" a felony), they have made the "offense" at best a very-expensive-to-prosecute misdemeanor. In other words, they themselves will have trivialized the "crime". The reactionaries also know that the public knows they represent major for-profit corporations and these have never really been well-liked by the general public. Even Walt Disney Productions isn't held in high regard on this issue.

And then there's the whole moral issue of file-sharing. The reactionaries say it is immoral, but that claim is hard to make to the general public. To the public, they don't see anything wrong with sharing someone else's work as long as you don't expect money in return. To the general public, file sharing (a.k.a. peer-to-peer [p2p] networking) equates to book sharing ... or photocopying a magazine article you liked and giving the photocopies to friends.

The reactionaries would probably want to raise the legal issues involved next, but that actually misses the point. While laws ideally stem from generally accepted morals, laws can also be immoral and the public knows this. The public knows that the law can be perverted to suit the interests of others. The public knows that industry in the past and present have done this on numerous occasions. Add to this, the public's general distrust and dislike of major for-profit corporations and you've got a scenario where even the reactionaries know they must tread carefully and selectively. One false step and they lose the backing of politicians. And if the reactionaries lose the backing of politicians, it's *game over* for their side. They've lost the war. While politicians love getting campaign contributions from major corporations, what they love even more is getting re-elected – and the only way to do that is by being seen to be on the side of the majority of the People. One martyr and the reactionaries lose the politicians.

If this wasn't bad enough, the reactionaries have a very limited scope of effect. Beyond the borders of just a handful of countries, they're totally ineffective. In the vast majority of the world, data piracy is completely unchecked. And because most of the world's entertainment comes from the previously mentioned handful of countries, there's little incentive for the rest of the world to take much action to protect the interests of those few countries. The rest of the world knows that any money paid to these few countries is money sucked out of their own national economies. There is also nationalist pride at stake: no country likes being dictated to by another country or having foreigners tell them what to do and many of these countries would love to see the global dominance of these handful of countries (especially the US) in the entertainment industry crippled, if not terminated. When you also consider that different countries have different concepts of property and intellectual rights as well as how long these rights endure, you've got a global scene where the reactionaries will never make much headway.

Still not bad enough? It gets worse for those entertainment companies that continue to listen to the reactionaries. Although the vast majority of global entertainment is produced by only a handful of countries, that doesn't mean 100% of it is. Entertainment producers in countries where the reactionaries have no supporters or power will have little choice but to meet the P2P Revolution head-on. It will be hard going for these "outsiders" but the coming changes also hold great promise for them. The reason is that if these "outsiders" are able to not only survive the P2P Revolution but thrive in a p2p environment, they'll have a leg up on those entertainment companies that haven't yet adjusted to the reality of p2p. In other words, they could eventually become the dominant force in global entertainment. Just as supporters of the losing side in a war lose everything when defeated, the current major entertainment companies could lose everything to these "outsiders". If this line of reasoning is true, the longer the current major entertainment companies continue to listen to the reactionaries, the more likely it is that they're hammering nails into their own coffins.

Almost unbelievably, the reactionaries know all the above. I know this for a fact, having personally talked to many of them about each of the points I've just made. Yet even while admitting that all of the above is true, they refuse to give up. They even admit that the war is unwinnable and yet they continue the fight. Now, many have confided to me that they're simply milking this for as much as they can for as long as they can, but for others it is almost a holy war. A vendetta. In a sad way, they remind me of Ahab who wouldn't ever give up his fight against Moby Dick. Even when accidentally and tragically tied to the side of the victorious white whale

after it had destroyed and sunk his ship, Ahab continued to drive his harpoon into the beast ... until he himself was drowned by it.

THE REALISTS

Opposite this reactionary group is a growing pragmatic element in the entertainment industry. These pragmatists acknowledge the futility of the reactionaries' efforts and seek a positive outcome. They see a positive outcome as a profitable one for the entertainment industry, even in this age of rampant data piracy.

The solution that the pragmatists have come upon is a simple one: purposely giving away data entertainment for free and making money by turning it into a branded product as well as by way of peripheral sales.

There are two methods of making data entertainment a branded product: sponsorships and product placements.

SPONSORSHIPS

Sponsorships remind us of the black-and-white "golden age" of television. Back then, advertisers associated themselves with a single show and covered all the costs of producing that show for a broadcast television network ... as well as providing a nice profit on top of that for the network's bottom line. For those that remember and/or know television history, "Firestone Theater" was one such example.

Already, major advertisers are beginning to experiment with this type of sponsorship again. Recently, Nike has compiled and given away a number of free music CDs.

Another example is Hallmark Greeting Cards, a company that never stopped using this approach. It has sponsored commercial-free presentations of its annual Hallmark Theater program on major broadcast television networks for decades. The company is currently experimenting with the Hallmark Channel, its very own cable television network.

However, don't get the idea that sponsorships are something that was once popular and then forgotten by most advertisers. Live concert tours have, for a long time, been sponsored by major advertisers. Even local strawberry festivals in small communities have had their share of local sponsors.

One negative aspect of sponsorships is the risk of putting all your eggs (a.k.a. advertising dollars) in one basket and not spreading them around. That's one of the main reasons that television switched from shows having a sole sponsor to commercial breaks, giving a number of advertisers the opportunity to reach that show's viewing audience. This doesn't mean that the P2P Revolution won't let advertisers spread their eggs around. Advertisers will be able to accomplish this by way of...

PRODUCT PLACEMENTS

A steadily growing revenue source for movies has been product placements. This is where the advertiser's product is used or seen in some fashion during the movie. It doesn't necessarily need to actually be in the actor's hand or important to the story's plot. It, its image, or the company's logo just needs to be seen somewhere on the silver screen. It could be on a billboard that the main characters drive past or one of the advertiser's ads could be on the television set in the background. These background placements are low-grade placements, but they can still be a good investment for the advertiser. Like low-quality coal ... not the best but still useful and a good buy for what you're paying. A high-grade placement, on the other hand, would be the product being used by one of the likeable main characters. A classic example of this was the use of Reese's Pieces in the movie "E.T."

Interestingly – and fortunately – the public likes product placements in their movies. It makes the movies more realistic, since there's no such thing as nameless products in real life. Also, making up a new product name instead of using a known brand name can work to the detriment of a movie. It draws attention to the unknown product name and away from the actors, plot, suspension of disbelief, etc. Using a known product instead makes people see it but not focus too much on it. Everyone wins in such a situation. The advertiser wins by getting their product seen in the movie, the movie company wins by getting paid by the advertiser, and the audience wins by having a more reality-based story.

Presently, most advertisers only want high-grade product placements. Unfortunately, movie companies and their directors currently have a tendency to focus on the advertiser's product more than is usually acceptable by viewing audiences. In other words, it moves the product from its normal place and spotlights it. Centering the product on the screen for a second or two is a common but poor execution of product placement. It often results in the audience laughing at the product as its blatant plug is recognized by everyone for exactly what it is. Fortunately, as product placements are used more and more often, high-grade product placements will gain in sophistication so that they are viewed positively by the audience, not derided.

The newest development in product placements is low-grade product placements. These are placements that are simply present as they would be in normal life: in the background with no special attention given to them. The directors are instructed not to give them any attention whatsoever. An even more interesting development will be where competitors share these low-grade product placements with the two competing brands jointly appearing in the same movie. The benefit to the two advertisers is that it makes the movie more realistic (as seeing only one brand for a product type is rare in the real world) while at the same time excluding all the other competing brands. Also, if one brand is trying to promote an image that suits one character while the other brand suits another character in the story, both brands benefit by sharing screen time.

One last thing needs to be remembered about product placements: they're eternal. Unlike TV ads, product placements are not changed when that TV episode is shown again. They're FOREVER part of that episode. This is something that few major advertisers have fully grasped

yet ... or can grasp. It requires them to take not just a short-term perspective, but also a long-term perspective to their advertising. That's a rare thing in advertising. However, the major advertisers that do so will profit from it. They'll bid the most for these product placements and recognize that they're getting a bargain.

PERIPHERAL SALES

Fans of a movie want to buy things related to the movie: Star Wars action figures, Harry Potter lightning-bolt temporary tattoo stickers, and so on. These types of items generate a lot of profits for Hollywood today.

However, for such things as movies, comics, TV shows, and other works of fiction, there will likely be an interesting trade-off between product placements and merchandise sales. The more product placements a movie can have, the less merchandise sales it will generate. The reverse is also true. It's all about uniqueness. The more unique the world is portrayed in the show, the more merchandise sales and less product placements can be generated ... and vice versa. For example, "Lion King" could not have had any product placements, but did have great merchandise potential ... whereas "Home Alone" could have had tons of product placements, but little, if any merchandise sales. Then there will be movies that can do both, such as "Harry Potter". It is part of our world and yet has its own separate magical world. What this means is that movies, TV shows, comics, and other works of fiction will likely be eventually viewed as "merchandise" projects or "product placement" projects ... or, on a rare occasion like "Harry Potter", a little of both. This will also create an interesting situation where custom merchandise manufacturers will be the driving force behind unique-world movies ("Star Wars", "Shrek") and major advertisers will be the driving force behind present-day movies ("Forrest Gump", "The Sixth Sense"). Needless to say, Hollywood will be happy to collect money to produce both types.

Now I could go into more detail on peripheral sales, but I'll save that for the section where I discuss the various sub-industries of the entertainment world and how the P2P Revolution will affect each of them.

PART ONE CONCLUSION

It's all about money. If entertainment companies can make a profit by giving away their movies, television shows, novels, music, and so forth free, they will. If they don't, their competitors will bury them by doing so. After all, only a fool would think that the public will pay for a product when they can get it free elsewhere. Thus the big change will come when the entertainment industry finally recognizes that the creative product is not to be sold directly, but instead used as a medium to sell other products.

However, before this next wave in entertainment hits our shores, another wave – a technological wave – must hit it first.

PART TWO

SUPER-HIGH-SPEED INTERNET CONNECTIONS

Currently, internet speeds are simply too slow to satisfy the average person's tolerance for downloading even a half-hour television program. Before the next wave of entertainment can come ashore, there needs to be a major increase in internet speeds relative to the current high-speed internet connections, such as cable modems and DSLs. Fortunately, this is just about to happen. And it is happening on a number of fronts.

In the very near future, cable modem service providers will be able to increase their internet speeds by at least ten-fold. DSL providers are scrambling to match this increase. The reason for this pending increase is a combination of technological advances and upgrades of the hardware of their systems that will enable it and customer demand. Consumers do not care about how nicely designed their cable modem company's website is, what "free" computer games are given out, or any other "banker's toaster" they might be offered for signing up. High-speed internet customers are only concerned with how fast they can download stuff and how much it will cost them for that speed. When faced with the choice of either cable modem service or DSL service, the two chief considerations have always been speed and cost. After all, if the customer didn't care about high speed, they would have stayed with a dial-up internet connection. Given this reality, both cable modem and telephone companies are actively working on ways to increase internet speeds while keeping prices competitive with each other.

Also on the horizon are new competitors for the cable and telephone companies. These competitors are satellite companies, cell phone companies and power companies.

Satellite companies are about to make a big splash on the internet scene with their two-way satellite internet services. Presently, if you have a satellite internet connection, you download from a satellite but still have to upload and communicate with the net via a standard telephone line. This means downloads as fast as cable modems and DSLs, but uploads and net communications remain as slow as dial-up connections. However, with the introduction of two-way satellite internet connections, satellite companies can finally compete on the speed issue with cable and telephone companies.

Cell phone companies are also about to enter the ring. In fact, their technology may be able to offer even faster download/upload speeds from the very beginning. And with the collapse of local television stations (I'll discuss that subject later in this paper), the additional bandwidth that will likely become accessible to them at that time can be used to further increase the speeds of the internet service they can offer.

Then there are the giants that are about to enter the internet field: power companies. These companies already have all homes connected to their wire system ... unlike cable modem and DSL providers. This gives power companies a HUGE advantage over all other internet competitors. Their main problem now is simply working around "line pinchers" (as far as

continuous internet connections are concerned) that stand in their way. For example, a transformer is a line pincher. Transformers are good for preventing massive power surges from frying all the appliances in your house, but that same ability interferes with providing you with a continuous internet connection. However, power companies are already devising bypass equipment to move data transmission around these line pinchers and new line equipment is presently being developed to improve rather than hamper internet connections. As for the internet industry, power companies are the ones to watch. They cannot be stopped because they have long had more political clout than the present players in the internet industry have ever had, they're already connected to all homes, and the greatest danger they pose to other internet providers is that they are heavily regulated. Being heavily regulated means they cannot price gouge their consumers as much as other internet providers can. Additionally, in my conversations with those in the industry, some power companies are actually thinking of giving away high-speed internet service free to their consumers, viewing it as a way to generate good will from the public. And good will is something all power companies realize they need to cultivate in order to prevent still further regulation of their industry. Also, as one power company executive informed me, the added cost of the bypass equipment is so small in comparison to the other operating expenses power companies pay that it actually won't even raise rates by a penny.

But the increase of internet speeds doesn't end with the above providers. Another innovation is just on the horizon: combined internet connections. Put simply, combined internet connections enable your computer to receive and transmit data via more than one internet provider at the same time. Initially, combined internet connections (CIC) will be a peripheral box added to your present computer. Into this CIC box you'll be able to connect a cable modem, a DSL, a satellite connection, internet cell phone connection, and internet powerline connection. Within the CIC box, they'll be merged to form one signal for your computer to handle. Very soon after the introduction of such CIC boxes, computer makers will simply make them part of the computers they sell. You'll then simply have a variety of plug-in jacks for you to hook up all your different internet connections to your computer. CIC boxes represent a way of significantly increasing the speed of your downloads by simply combining more than one internet connection. For example, if you already have a cable modem and simply add a DSL connection via a CIC box, your internet speeds would be instantly doubled. Another nice benefit of CIC boxes is stability of connection. If your cable modem connection goes down, it doesn't mean you're no longer connected to the internet because your DSL, powerline, etc. connections will likely still be connected.

Lastly, new algorithms are being researched that hold the promise of increasing the speed of data sent over the present net by at least several thousand-fold. For example, Caltech's FAST algorithm has been clocked at 6,000 times faster than the net's current protocol algorithm for DSL connections ... or, to put it another way, 153,000 times faster than dial-up connections ... or, to put it still another way, it could download an entire DVD (full-length movie with all its additional features) in five seconds. These new algorithms alone – without any other changes in the hardware of the net – will bring about the P2P Revolution. Combine these new algorithms with the coming-soon upgrades of the net's hardware and additional internet providers that I've already discussed and the P2P Revolution is an absolute certainty. No questions. No doubts. It will happen. Period.

PEER-TO-PEER (P2P) NETWORKING

The current scourge of the entertainment industry is peer-to-peer networking. This is where a client program on your computer shares movies, songs, computer games, and so forth with other computers across the net. All you need is to be connected to the internet and have a peer-to-peer networking program running on your computer. The p2p program doesn't even have to be the same one on both computers these days, as these programs are now all designed to communicate with each other.

However, what is currently the scourge of the entertainment industry will soon be a blessing. It will be a blessing in how it enables free-to-distribute movies, television shows, computer games, novels, and so on to be transmitted by their creators to the public. Data entertainment creators will not have to pay for extremely expensive T3 and bigger bandwidth connections to the web in order for people to be able to download their products. All the creators will need is something as simple as a regular cable modem or DSL connection. The beauty of p2p is that what you offer to p2p networks gets shared by the p2p networks. Let's say you created a free-to-distribute television program called "My Life as a Panda". You load a show episode into the share folder of your p2p program. Now others can start to download the episode from you. Good downloaders also share what they download. In fact, there are p2p programs (such as MX Monitor) that prevent people from downloading files from them if the downloaders don't also share files in return. So let's say someone downloads your episode. Your episode is likely one of many programs that the person is attempting to get. This means that once they get your complete episode, they'll likely still remain connected and thus available for others to now download your program from them. If it is a popular program (as naturally all life-as-a-panda programs are), many people will download it from you and from others that have already downloaded it from you ... and still others that downloaded from them, etc., etc., etc.

What this means for data entertainment producers is a VERY inexpensive way of getting their product out to everyone in the world that has internet access or knows a friend who does. In other words, the cost of distribution is close to zero. Zero distribution costs means lower operating costs and thus higher profits from revenues generated.

And p2p is just in its infancy. An infancy that cannot be killed and will only get better with time. It used to be that you had to search for the files you wanted to download and then basically nurse them until they were completely downloaded. You had to also actively search for new download sources and command the program to download from them. This resulted in you chatting and trading with those on the p2p network. Nowadays on WinMX (one such p2p program), this is largely a thing of the past. Today's WinMX can be set to check every ten minutes to see if new download sources are available to download from and continue to do this without supervision until the file is completely downloaded for as long as your computer is on, connected to the net, and the p2p program is left running.

For the next wave of entertainment, data entertainment producers will help these p2p programs by providing their own p2p software for their fans to use so they can regularly and automatically check to see if any new episode is being offered by that producer. If there's a new episode out, the producer's website will inform your computer when the software checks in with

it. The producer's website will then give your computer the identification number of the episode and your p2p program will begin searching for it throughout the p2p network. All without you, the fan, needing to even know there's a new episode out there. These producer p2p programs will then pop up a message on your computer letting you know what they've started to download as well as when the download is complete.

A variation on these producer p2p programs will be ones provided by companies like TV Guide. With a TV Guide p2p program, it would check all producer websites (essentially incorporate the abilities of all those p2p programs into itself) and then list in an easy-to-use format all the new episodes being offered since the last time you checked their listings. Some producers will buy advertising on TV Guide's p2p program to make you aware that they have something new to offer. TV Guide will also likely have a feature allowing you to always automatically download something from a particular show, writer, director, producer, what-have-you. Ease-of-use will be TV Guide's biggest selling point for their p2p program, i.e., "Why download hundreds of producer p2p programs when we can do all that for you?" By tossing in reviews ("Picks & Pans") and articles on newly-offered movies, TV shows, computer programs, and so forth, TV Guide will continue to be a favorite listing company of the masses. Instead of dying with the broadcast and cable networks, TV Guide will merely change with the times and keep plugging away. However, it could always not pick up the ball, but – no worry – someone else will definitely snatch it up and run with it if TV Guide doesn't.

In fact, it wouldn't surprise me if TV Guide has to fight its way into providing such a service for the masses. The reason is that there will likely be plenty of these p2p listing programs out there. Some will be started soon and not afraid to list potentially pirated movies, TV programs, computer games, and so on. The reactionaries of the entertainment industry will most likely be aggressive in going after these p2p listing programs, but that won't stop underground ones from being created and maintained by volunteers. Also, TV Guide will likely only list non-pirated material on their p2p listing program; to do otherwise would invite a lawsuit. Unfortunately, this Honest Abe approach will likely hurt them when competing against the underground versions. Whether TV Guide will be able to maintain its dominance over program listings will probably depend on how fast the next wave in the entertainment industry arrives.

The key to all these p2p listing programs will be customization: the ability of the program to enable users to selectively choose what they want to download and even what types of new programs they'll want to be informed about. For example, if you dislike all soap operas, these types of shows will not only not be downloaded, but your p2p listing program will not even waste your time by informing you that these new episodes exist. On the other hand, if you like soap operas but just not a certain one (i.e., "Days of Our Lives"), the program will not list new episodes from that series.

Another feature of the websites and p2p programs offered by entertainment creators will be the ability to remove products from their share folder. The logic is to remove those products that are already being adequately offered by lots of others on the p2p net and to make available those products not being so heavily supported elsewhere in the producer's share folder. This way those wanting to download the rare products have fewer people ahead of them waiting to get

stuff from the producer's p2p program. Naturally, such a producer's program will need to always be monitoring the p2p networks and shifting products in and out of their share folder as needed.

THE DEATH OF TiVo & "THE LAST DASH"

I'm sure the title of this sub-section would delight the major advertisers who hate TiVo for enabling viewers to bypass their TV commercials, but they'd be wrong to be delighted. The reason is that your home computer will simply replace TiVo. TiVo is an electronic device that enables you to easily record television programs. It is different from a VCR in that no videotapes need to be inserted and its memory holds more programming than any videotape. TiVo hype aside, it is basically nothing more than a large hard drive and is about to be quickly replaced as soon as the "last dash" is conquered.

The "last dash" is the distance from your home computer to your living room television set. It's called a dash simply because your computer and TV are less than 100 yards from each other. This "last dash" will probably be conquered in one or more of the following ways.

The cable modem providers will be one of the first to run the "last dash". If you have a cable modem, you also have cable television. Already your computer and TV are thus connected to each other. The challenge cable modem companies face is essentially a software problem: how to network your TV and computer together. Your computer will download and store programs to be viewed on your TV. Your TV's remote controller needs to be able to access this information from your computer and display it on your TV screen. How this will be done is currently under research by the cable modem companies. However, once it is figured out, TiVo is dead. Your cable modem provider will simply offer you free software to do everything TiVo does. And once the cable modem companies can offer this to their customers, expect them to heavily promote it as one of the big differences between DSL and cable modems. Cable modems will have it and DSLs won't. Expect DSL companies to lose a lot of customers if they don't quickly offer a workable TiVo-like system to their customers once cable modem companies can.

Competing right away with the cable modem companies will be the satellite companies. Essentially, they'll do exactly the same thing as the cable modem companies. The difference is the local networking of your computer and TV. Some satellite companies will try to use a wireless system while others may require you to run cables between your TV and computer. However, a third option is to simply use your house's electrical system. Since your computer and TV are already connected via your home's electrical system, it is possible to simply use these electrical wires to link your local network. Initially, you'll probably need to have peripherals added to your computer and TV to be able to do this. Eventually, all computers and TV sets will have this feature built into them as standard hardware.

Although they do not provide entertainment over their phone lines, telephone (a.k.a. DSL) companies will be in a similar boat as the satellite companies. Giving your computer a TiVo-like program will be easy. Networking your computer and TV will be the hard part.

However, since there's likely a telephone jack in both your TV room (or wherever you have a TV) and your computer room (or wherever you have your computer), the simplest thing is to use this already existing hardware network to create a computer-TV local network. Initially, it will require a peripheral box for your TV set to enable you to do this, but eventually all TVs will have this equipment built into them.

Cell phone companies will likely jump into this local networking area in the same fashion as the satellite companies. There might be a cell phone-like system of peripheral boxes you'll need to attach to your computer and TV for this to take place. Then again, they may copy the satellite companies and simply use your home's electrical system.

Power companies are all set for this part of the future of entertainment. But, again, their problem is providing reliable internet connection over their outdoor powerlines. In an odd sort of way, the power companies will likely be developing their internet service in reverse order from all the others. They'll first network your house together and then provide internet connection. Fortunately for the power companies, they have very deep pockets and existing line crews so the switchover is likely to be fast when it happens.

And then there are wireless local network technologies just now rolling out, such as Bluetooth (www.bluetooth.com). These transmit data over a very short range. Already, you can buy Bluetooth wireless keyboards and mice that enable you to no longer have to have these connected by wire to your computer. Expect Bluetooth to shortly expand its technology to provide a similar way for your TV and computer to network together. Also, expect DSL, satellite, and internet cell phone companies to become big backers and promoters of Bluetooth.

As for TV and computer makers, expect to hear lots of meetings between them and all of the above listed internet service providers. Don't be surprised if the internet service providers buy significant blocks of stock in TV and computer makers to insure their version of net service has the necessary hardware backing it up. Some internet providers may provide low-interest loans, or even give away grants for TV and computer makers to develop and include this hardware. Major power companies will be a likely source for these grants as they have very deep pockets and can take the long-term perspective on things.

PART TWO CONCLUSION

With the technological advances listed above, the scene is now set for the P2P Revolution.

In Part Three, I will deal with specific sub-industries of the entertainment industry and what the subjects I've discussed so far will mean to each of them.

PART THREE

MUSIC

The music industry is widely known to hate p2p networks. It was the music industry that brought down Napster and it continues to be the most vigilant against data piracy. However, as explained earlier in this white paper, there's really nothing they can do about it and all their efforts to date have been meaningless in beating back the tide.

The primary effect of the P2P Revolution on the music industry will be to force music bands back onto the road, doing live concerts. They will allow free downloading of their songs and the musicians will view this as simply a way to advertise their concerts. The revenue sources for bands will be concert tickets and merchandise sales. Already, there are many bands taking this approach.

There will soon emerge an association of pro-p2p bands. They'll be the opposition voice against the record companies and old guard of the music industry. There will be many heated debates between these two factions that radio and television talk shows will eat up. The pro-p2p association will divide the music industry. The division will represent those bands that are with the times and those who are not. The new guard against the old. And from a marketing standpoint, no band that seeks to be or wants to remain popular with teenagers and young adults wants to be viewed as part of the establishment. For just this reason alone, the pro-p2p bands will explode in numbers. The pro-p2p band association will also cripple the efforts of the anti-piracy element of the music industry. The pro-p2p association will offer counter-testimony before congressional hearings over piracy. They'll win over listeners by simply stating the facts and realities.

Pro-p2p bands will even take the fight into their songs. Expect them to sing about the coming future when "The Man" no longer controls their creative voices, when the smallest voice can be heard by the world, when bands leave their ivory towers and return to the people, and so on. All music genres are suited to being pro-p2p and what that represents – or, in regard to major corporations, what it doesn't represent. The only thing I wonder about is which music superstar will be the first to hit the Top 10 with a blatantly pro-p2p song that's released for free distribution over the p2p net. Will it be one of the youngest hot bands wanting to demonstrate that they're on the cutting edge of music or will it be an "old" music superstar trying to reconnect with young people?

On the side of the pro-p2p bands will be music radio stations. Simple economics here: if the bands are giving away their songs totally free, the stations won't have to pay for playing them. The pro-p2p bands will welcome such exposure since they view such broadcasts of their songs as free advertising for their concerts. The radio stations then get to save at least 1% of their gross revenue by not having to pay royalties. And even though that might appear to be a very small amount, it does add up and radio stations will want to keep that 1%. In addition, they will be viewed as part of the anti-establishment pro-p2p movement in music. And with each

radio station that switches over to a pro-p2p format, it's just another nail in the coffin for the old guard of the music industry.

Also on the side of the pro-p2p bands will be tour promoters. The tour promoters that understand what's actually going on will do whatever they can to help the pro-p2p bands. Expect some tour promoters to not even handle a band unless it is pro-p2p. The reason is that tour promoters make their bread-and-butter from ticket sales to concerts and the merchandise sales made at those concerts. Once the tour promoters grasp that free-to-distribute songs are simply advertising for their concerts, they'll no longer nod when the record companies complain about piracy. For tour promoters, piracy has so far been – and will continue to be – a good thing. It creates fans and then gets them into the seats at the concert halls.

Now the wisest of the bands will offer their own p2p listing software programs so their fans can easily get all the band's latest songs. Tour promoters will likely help out here by employing website designers and maintenance personnel to handle the websites and p2p listing programs of the bands they promote.

MOVIES

We've covered a lot about the movie industry already. However, how they'll be perceived is also about to change. Presently, movies are first viewed in movie theaters. It is the only place where you can currently get the big panoramic immersion viewing experience. However, all TV manufacturers are racing to build bigger and cheaper flat-screen television sets. The true home theater experience is finally about to happen.

Presently, home theaters use very expensive projection systems that operate in much the same way that movies are shown in public theaters. There's a projection unit (usually with three projectors, one for each primary color) that projects the movie, television show, etc. onto a silver screen. Unfortunately, the picture quality of these systems is rather poor. Any other source of light destroys their quality and that's very hard to avoid in a home environment ... even if the home theater has its own room. However, flat LCD screens actually absorb light and thus other light sources are not as big a problem.

Also, television screen tapestries are presently under development around the world. These are flexible LCD television screens that can be unrolled and hung on a wall like a tapestry which then serves as your viewing area, turning one wall of your TV room into your TV screen. This can provide the full theater panoramic immersion experience. Combine that with Hollywood allowing free download of their movies and you've just spelled out the death of the movie theater.

Along with the death of the movie theater will come the demise of other middlemen of the movie industry. First on the chopping block will be the distributors. Second will be movie rental stores.

But major movie studios are also at risk. As the price of high-quality digital video and graphic equipment continues to plummet, the need for deep pockets to make a movie is also being reduced. As p2p networks enable free distribution of free movies, deep pockets will be needed even less and will finally open a door for small independent film producers to compete for audiences with the major movie studios. This is not to say that major movie studios won't survive the P2P Revolution. They will with wise guidance and forethought. They already have physical assets (sound studios, location lots, props, equipment, salaried talent, etc.) that they can leverage to their advantage. And their deep pockets will still count for something since making movies and advertising them will still cost money. However, how the major movie studios fill their deep pockets will change. Gone will be movie ticket and video sales. Replacing that revenue will be peripheral (a.k.a. merchandise) sales and product placements.

My advice to both small and major movie studios would be to make great efforts to develop and mature the department that handles their product placement sales. I'd break down that department's reporting to separate out high-quality and low-quality product placement revenues so they can be monitored, focused on, and given their own sub-departments. I'd recommend going into long-term advertising arrangements with a number of major advertisers for just the low-grade product placements in all their movies. I would not sell the right to be the sole provider of low-quality product placements for their movies, but open up the bidding to two or three brands for each product type. This way there will be a variety of branded products on the screen to help make the movies more realistic while at the same time still limiting the number of brands so there's a bidding war for those limited spots. These low-grade product placement contracts could be auctioned off once a year.

As for high-grade product placements, I would recommend these also be sold off auction style, but on a case-by-case basis. High-grade product placements are not the same in every movie. For example, audiences aren't going to buy it that people in the New England area are putting on Coppertone Suntan Lotion in the middle of winter. Oh, and expect this to be a point of contention between the creative types and the corporate types within each studio. The corporate types will want as many high-grade product placements as possible while the creative types will only want ones that make sense for the context of the movie.

As for the auction of these high-grade product placements, one must realize that no movie simply comes into existence overnight. It takes a long time to go from finished script to being given a green light for making the movie. Each script needs to generate its own buzz. Its own hype. Presently, this buzz helps attract major movie stars, directors, and others to a script. Extending this to also attract major advertisers for the script's high-grade product placement opportunities isn't that much more of a stretch. In fact, it is already starting to happen in Hollywood. If major advertisers or the advertising firm that handles their account don't already have an advertising executive stationed in Hollywood to land them these high-grade product placements, they better correct that quickly because their competitors certainly will.

And I'd love to be such an advertising executive. They will be as sought after by those in the movie industry as the hottest movie stars are currently ... possibly even the most sought-after. It will likely be these individuals that will make the difference between getting a movie made or not. The reason is that they represent money. Lots of money. Money the movie studios

will want to tap. Lining them up will be crucial for any movie to get made. The majority of the buzz will be actually directed at these executives, in order to get them interested in a script and to get them to sign on. And hot properties will result in these advertising executives bidding against each other for the opportunity.

The above will also change how movie stars nurture their careers. Being a corporate spokesperson will greatly increase in importance. If you're the spokesperson for a major advertiser, Hollywood will know that if they can get you onboard for a script, it will likely mean you'll bring along your major advertiser as a backer for that script. Again, I'd love to be one of those advertising executives since they'll be extensively courted by famous actors and actresses to get the executive's company not only onboard for a movie but possibly to hire them as their corporate spokesperson. In other words, these advertising executives will be on the A list for all the Hollywood parties.

BROADCAST AND CABLE TELEVISION NETWORKS, SYNDICATORS, & LOCAL AFFILIATES

Dead. Dead as a beached jellyfish ... in Death Valley. All of them are nothing more than middlemen. And to creative types, they're also hated gatekeepers. The P2P Revolution will kill these off as the telegraph wire killed off the pony express.

Now is there anything the networks, syndicators, and local TV affiliates can do to survive the P2P Revolution? Not really. Not without transforming themselves into something else. They could attempt to become producers of entertainment and those shows MIGHT survive. At least until the stars of these TV shows realize they don't need the networks anymore. All major television stars already have their own production companies. Taking over production of their own shows, hiring their own sales force (to handle product placements and peripheral sales), and switching over to p2p distribution will be relatively easy for them. And expect syndicated television stars to be the first to dip their toes in these uncharted waters.

In fact, I wouldn't be surprised if the current queen of syndicated television does this first. I'm referring to Oprah. She has a show that is ideally suited to even the slow download speeds of the present net. It is a low-visual show. Basically just talking heads. Oprah could test the waters by simply producing a few of her regular episodes and make them only available for download from p2p networks. In other words, these special episodes would not be syndicated to television stations. As for product placements, soda pop companies would bid to have their cans and bottled water resting on a coffee table that's in front of the guests on the show ... with the guests drinking from the cans and bottles during the show. And a straight-out "thank you" plug by Oprah for an advertiser that helped pay for the show would also likely go over well with both advertisers and the viewing audience.

Then again, talk show hosts of the past (Donahue, Joan Rivers, etc.) might attempt this first. The reason is that these former talk show hosts are not currently straightjacketed by syndication contracts ... in other words, there's really nothing that prevents them from doing this experiment. This could also breathe new life into their careers by pioneering the P2P Revolution

and thus being closely associated with it. Their p2p software programs could promote episodes by topic and/or the name of the guests. Today when you watch a talk show, you're only given a choice of one topic that they're covering. Take it or leave it. With p2p, you select which topic you'd like to hear about from all those already tackled by the show and when you'd like to hear it. That freedom of choice will be intoxicating to viewers. The talk show hosts that realize this are the ones that will be able to capitalize on it.

Another group that may potentially lead the former talk show hosts into p2p will be producers of public access programs. For them, this is simply a chance to reach an audience that goes beyond their local cable television market. It is a chance to finally get their program seen by the world. A chance to become an international superstar. A chance to bypass the television networks who are currently the industry's gatekeepers and let the public decide if they like their program or not. Expect a flood of these programs to hit all p2p networks soon.

As for how the television networks will die, that will be interesting in and of itself. Will they go silently into the night? Will they show class and die gracefully? Or will they scream, cry, and bemoan their fate? Will they seek government intervention to keep them afloat? Will they threaten to sue any TV star that dares leave them to join the P2P Revolution? Honestly, I think we'll see all of these reactions ... within even a single network. And in the middle of all this chaos, possibly – just possibly – one network might survive. They'll survive by doing what smaller producers cannot do. They'll try to corner the mega-attractions (such as the broadcast rights to the NFL, NBA, Indy 500, Olympics, and other major sports leagues and events) and ride them into the P2P Revolution. They could also produce shows that are just too costly for any minor-league producer to attempt. This survivor network will realize that FOR NOW they still have deep pockets and established relationships with major advertisers. The key ... saying it can be minted ... is rapidly developing product placement and merchandise sales so they don't need to sell 30-second commercials in order to turn a profit on these very expensive contracts for mega-attractions. That will be quite a feat to accomplish. Not an impossible feat, but the odds definitely don't favor them. The odds will be made even worse when the other networks – the ones that denied that the P2P Revolution was coming or fought it tooth-and-nail – finally realize that it is inevitable and panic by jumping belatedly into the fray and bidding wildly to obtain rights to mega-attractions, thereby driving up the costs beyond profitable levels. Odds will become worse still if the major movie studios themselves try to capture these mega-attractions and/or produce the sky-high-budget shows. And if the odds weren't already extremely poor, imagine what will happen when the owners of the mega-attractions figure out they might make more money by producing their own shows for p2p distribution.

People wondered how the Berlin Wall was going to fall and few guessed it right. The same thing will happen with the death of the networks. And if you think about it for a second, that analogy is very appropriate. Again, this will be interesting to watch.

TV ADVERTISING FIRMS

The 30-second television commercial is about to die. Commercial breaks are about to die. There is no hope for a cure. They're terminally ill. They're to be put six feet under because there is no way advertisers are going to be able to force viewers to watch their ads once television programs are distributed over p2p networks. And even if they were to find such a way (perhaps by somehow preventing people from fast-forwarding through them), any television show producer would be a fool to accept these ads since it would hurt the appeal of their show to viewers.

What will replace the 30-second television commercial? What I've already mentioned before: product placements and sponsorships. Unfortunately, very few advertising firms have much experience with either of these and there are many that make all of their profits from producing 30-second TV ads. During the first half of 2003, if you were to have randomly picked the website of any advertising firm, odds were extremely good that nowhere on their website would they even mention product placements. These clueless advertising firms are about to get hit – and hit hard. Many will not just be knocked out, but killed in the ring. Blindsided by a killer left hook. And they will have only themselves to blame for their fate.

If you're an advertiser, you need to find out whether or not the advertising firm that handles your account is of this clueless type. If they are, dump them and get one that not only knows that the P2P Revolution is coming but is preparing for it ... if not already involved in it. Don't, however, find this information out by chatting with them. They could just make things up as they talk to you. "Yeah, sure ... ummm ... we're on top of that. Definitely. We're ... ummm ... right now ... errr ... setting up such deals as we speak. Yeah, that's it. That's what we're doing." Instead, simply visit their website and see if they even mention product placements, sponsorships, and the P2P Revolution. Due to the importance of the P2P Revolution, their firm's CEO's introduction letter on their website should at least mention it, if not totally focus on it. Also, if this free-to-distribute white paper becomes popular, do they enable you to download it from their website? Do they follow it with their plan of action for the P2P Revolution? Do they have employees whose sole job right now is product placements ... and others whose sole job is sponsorships? Do they have an executive stationed in Hollywood to get product placements in movies? Do they list product placements they have already successfully obtained? Do they have pro-p2p advocates on their Board of Directors and no anti-p2p reactionaries? These are the questions you need to ask if you're an advertiser ... and not just if you're a major advertiser. Small advertisers need their advertising firm to be on top of things just as much as major advertisers do ... if not even more, since every penny counts for small advertisers and the P2P Revolution will affect everything all the way down to the local level.

The advertising firms that will flourish ... in other words, they know what they're doing and thus attract the most advertisers ... will be those that are active right now in product placements and sponsorships. Just as in any field, being good at something takes knowledge and experience. You've got to understand how these things work, how to make them work for you, and how to get the most bang for your buck with them. Now, some of the gigantic advertising firms will quickly acquire these skills by simply buying smaller advertising firms that specialize in product placements and/or sponsorships. That's fine ... as long as these giant firms can keep

the employees of the smaller firms on their payrolls. Second-tier ad firms will do the next best thing and try to hire away these specialists and then tout their credentials on their websites. Small ad firms will have little choice but to try to acquire this knowledge and experience by learning the ropes the hard way. Expect the hottest seminars in advertising to be on product placements, sponsorships, and the P2P Revolution.

And expect fireworks. Expect major advertising firms to do things that get them noticed. That get advertisers to say: “Wow. That took balls.” For example, don’t be surprised if a major advertising agency unceremoniously and publicly drops all their record companies as clients with the statement that they’re DMW (“dead man walking” ... a term used by prison guards for the prisoners they’re escorting to the execution chamber). Why should we expect such public bravado? Simple. All advertising firms need to be seen as not only with the times, but anticipating the times. The last thing an advertising firm wants is to be perceived as being clueless or behind the times. So what this means is they need to do outrageous things to get noticed. To get their image across. Casting off very lucrative record company clients will be one such way. There will be others. The best will be ones no one else has done yet ... for being original is also something highly prized in advertising firms.

And unlike other fields, universities almost always lag behind industry as far as spotting trends go. Trends in business are naturally very hard to predict. For example, the P2P Revolution has so far gone unnoticed by academia. However, this will shortly change. If this free-to-distribute white paper becomes popular, it may have something to do with this ... but it will happen anyway. Soon universities will begin doing research on what the P2P Revolution holds for the entertainment, internet, and advertising industries. Expect research studies on the effectiveness of product placements and what might improve their effectiveness. Still other research studies will explore sponsorships ... and some of these will probably be done by history professors studying sponsorships during the “golden age” of television. If you’re considering going to college for a degree in marketing, you’ll know a university is with the times when it offers a course solely on product placements, another on sponsorships, and a third on the P2P Revolution. The only question I have is which major university will offer all three first. Will it be UCLA (considered the premiere entertainment university and located in Los Angeles, home of all the major movie studios), Harvard (considered the premiere business university), or NYU (a very respected business university located in New York City, home of the corporate headquarters of almost all major advertising firms)?

NEWSPAPERS & LOCAL TV NEWSCASTS

Daily newspapers have been dying off for decades now. Only major cities still have more than one daily newspaper ... and both are usually owned by the same company. But even when the same company owns both, it doesn’t guarantee both will survive. For example, the Milwaukee Sentinel and the Milwaukee Journal were both owned by the same company. One was the city’s morning newspaper and the other the city’s evening newspaper. However, it just wasn’t profitable to keep both alive so they were “merged” into one.

Unfortunately (or fortunately for the P2P Revolution), there are still college students that dream of being newspaper reporters. However, with the closing of more and more daily newspapers every year, the few job openings with daily newspapers are hotly fought over by hordes of laid-off seasoned professionals from these dead newspapers. The job prospects for new journalists have therefore never been worse.

This glut of journalists (newly-minted ones out of college and laid-off seasoned pros) is about to produce a new form of local news: local news websites. The economies are perfect for this to take place. Local news websites can be small operations and located anywhere. Gone is the need for printers, truck drivers and paperboys. Gone are the huge printing machines and massive rolls upon rolls of paper. Gone is even the idea of a deadline. The P2P Revolution will hit this industry soon and then spread like wildfire. Here's an illustrative scenario on how things might occur.

Four journalism college graduates get together. All of them have sent out their resumes to every single newspaper in the US ... if not the entire English-speaking world. Each could totally wallpaper their apartments with the rejection letters they've received back. However, one of them also has a second major in computer programming and they hatch a plan. They plan to go head-to-head with their local daily newspaper and TV stations. They open a website with a unique catchy URL name that speaks of both news and a connection to their city. They convince their parents to help fund this "post-graduate" work for a year or two. They then divide news coverage amongst themselves. One takes the local sports beat, another takes city government, another takes local businesses, and the fourth takes society ... though they'll help each other out as events warrant, such as two sports games happening at the same time. Armed with laptop computers and digital video/still cameras, they begin covering the city. Being young journalists, they are prolific writers and are constantly reporting on something going on in the city. They serve as "editors" for each other. Before any article is put out on their website, another of them has to proof (catching typos, misspellings, etc.) and approve it. And they don't wait until a certain time to put out the news. They put it out as fast as they can write it up and get it approved. They start bartering banner ads with local businesses in exchange for office space, web hosting, meals, dry cleaning and other stuff they may or may not report as income to the IRS. Oh, and most importantly, they barter for advertising. Shopping bag inserts, posters in high traffic locations at the businesses, small freestanding signs on dinner tables in restaurants, and so on. As for cash revenue, there will be many local businesses that either want to reach the local news website's audience and/or want to try to buy favor with it ... or at least hold at bay the reporters from attacking them by purchasing advertising and hoping they'll want to keep getting those ad dollars more than breaking a bad story about that advertiser. And since their overhead is extremely small, any revenue they do generate is almost pure profit.

And one of the ways they'll take advantage of the P2P Revolution is how they distribute their news video clips. Bandwidth is expensive and these college graduates just cannot afford much. The solution is p2p. The one of them that has the second major in computer programming sets up a producer p2p program (see the section "PEER-TO-PEER (P2P) NETWORKING" earlier in this paper for more on these programs) that enables their readers to download any news video clips they'd like to view. The producer p2p program will then search the net for copies and hopefully quickly download it for the reader. Some readers will instruct

this p2p program to always download any video clip put out by the local news website ... or just those for sports ... or just those on baseball. The local news website then only needs a relatively cheap cable modem or DSL connection to offer all its news video clips to all its readers. And some of the wiser local news websites will have agreements with other local news websites to download each other's share folders so there are numerous sources out there from which their readers can download. Thus a local news website in Japan will help out US local news websites when it is night in Japan and daytime in the US ... and vice versa for the US sites helping the Japanese sites during the night in the US.

Now, would these four young journalists really stand a chance against a major daily newspaper? Yes. In fact, the major daily newspaper with its hundreds of employees doesn't stand a chance against these four young journalists. The reason is daily newspapers must have a critical mass of subscribers or they'll go under. They need this mass to attract advertisers. When a city gets a local news website as outlined above, it will bleed off newspaper subscribers. The local news website's pitch is simple: more news, sooner, video clips of local news events, less damaging to the environment ("No forest was cut down for your news."), and it's free of charge. If the local news website is properly designed to become a homepage for locals and/or providing email notices of fresh news stories and hyperlinks to quickly get to them, it will grow in "circulation" at the expense of the local daily newspaper. And the local news website doesn't have to take away all the subscribers of daily newspapers to topple them. Not all – just enough to have the number of subscribers fall below the mass needed to keep local advertisers paying enough to keep the daily newspaper profitable. Whereas there's little expense in running a local news website, there's tremendous expense in running a major daily newspaper. The massive printing presses alone cost a ton of money just to keep them in operational shape ... to say nothing about running them. Add into this equation the cost of the printing personnel and distribution and quickly you see why daily newspapers have been steadily dying off.

Now is there a way for a company that owns a major daily newspaper to compete against a local news website? Yes, there is. Unfortunately, it takes an extreme measure that few newspaper executives will have the guts to do. What is it? Shutting down the presses and becoming entirely a local news website themselves. Laying off all printing and distribution personnel. Unfortunately, even if the newspaper executives have the will, too many newspapers have union contracts where this is simply impossible. Where this is the case, these newspaper companies are doomed.

However, the path of destruction doesn't end at the local daily newspaper. No, the local news websites will also take on the local television news. This is where those digital video cameras will come in handy for the local news websites. Local television news is really simply a talking head stringing together a series of news video clips. Local news websites can just do it better ... minus the talking head. First, they can allow their readers/viewers to pick what they want to know about ... as opposed to having no choice in what they watch in the case of local TV newscasts. Second, they're not limited to only thirty minutes each broadcast. In fact, they're not even limited to thirty minutes of video for any single news item. When it comes to competing with their local television newscasts, the pitch the local news websites will make is: more is better. They'll offer their readers/viewers a choice of the full press conference by the city mayor, an edited version with just the highlights, and even a selection of the topics the

mayor discussed at the press conference and their associated video clips. Local television news just cannot do that. Third, the local news websites can report the news as it's happening or shortly thereafter. Their news consumers don't need to wait until dinnertime or just before bed to find out the local news. With local news websites, their news is being constantly produced for – and accessible to – their readers/viewers around the clock. Lastly, local news websites will have lower operating expenses since they don't need a huge production staff and studio just to provide a talking head to deliver their news.

Local television news programs are just like daily newspapers: they also have to have a certain mass of viewers to attract enough advertisers to remain profitable. Local news websites will eat into this. However, unlike newspapers, no television station will go out of business over this single point. They'll go out of business for other reasons (namely the death of the networks), but not this one. Eventually, the station management will simply shut down their news division and probably run a syndicated television program in the timeslot once held by the local news program. A simple accounting decision.

Now is there anything local television news programs can do to combat local news websites? Normally you might think there would be. They both have a large visual aspect to them. However, I doubt there will be. Television reporters are not journalists. They're not known as prolific writers. In fact, they're commonly derided as airheads. They get hired more for their looks and presentation than their journalistic abilities. Some are both, but not as many as they'd like to think. This is where those four journalism graduates will excel and that will be another one of their edges over television newscasts. They'll provide the video coverage AND in-depth news articles to accompany them.

So who will be the local news website's chief competitors? Other local news websites. The first local news websites will likely be started up by freshly-minted journalism graduates. They're of the computer generation. They're used to them. They're COMFORTABLE with computers. After these journalism graduates topple their local daily newspaper, many of the then-out-of-work newspaper reporters will try starting up their own local news website. Who would win in such a battle? It's hard to say. The college graduates' website will have been the first one on the scene, but the newspaper reporters will bring their reputation, years of experience, and contacts. I would expect a large determining factor to be how long the daily newspaper tried to hold on for dear life. The longer it holds on, the more established the college graduates will be in the community and thus develop their own reputation and following. In other words, for the former newspaper journalists' website to have the best chance of surviving, it will require a quick death of their beloved newspaper.

On the other hand, a very likely outcome will be that both and more will survive and prosper. Remember that overhead is very small for a local news website, so what revenue is generated will be almost pure profit. Small revenue ... at least at the beginning ... but more profitable due to little overhead. What this means is another great era of journalism is about to happen as each city in the world will be served by more than one local news agency. And just as in the 18th century with newspapers, major cities like New York will initially have dozens, if not hundreds of local news websites. The marketplace will naturally thin these out, but it will be hard to guess which ones will make it and which ones won't.

Now is there gold to be made in these local news websites? Possibly. It will take patient, well-heeled investors to do it right. Essentially, they'd need to round up all the unemployed newspaper reporters and yet-to-be-employed journalism graduates and provide them seed money to start up these local news websites. Buying laptops and digital video/still cameras in quantity, then handing them out to their local news websites would enable them to profit from economies of scale. Hiring a young energetic local sales person for each local news website would also enable the website's journalists not to have to focus on this aspect of the business. Centrally pooling all accounting, legal counseling, employee benefits, and website design and maintenance would be another way to benefit all concerned. The best model will likely be a venture capitalist approach. The journalists for the local news websites having a stake in the business and thus sharing in the profits ... and possibly even being allowed to buy out the investor at a future date.

Now who would be willing to provide such seed money for local news websites? The answer might surprise some people: the newspaper chains. To them, it's just a business decision. Possibly some will first try it out in a market where they don't own a newspaper and see how it goes. However, once that proves profitable ... or another newspaper chain opens up a local news website in one of their markets ... they'll likely set up the local news website as an independent venture from their local newspaper in that market ... assuming union contracts would allow this. If union contracts don't, that same union contract probably would also prevent the shutting down of the presses of the daily newspaper to have it do the radical change-over to being just a local news website. And by unions preventing such a shutdown, I don't mean their contracts would make it illegal for the newspapers to shut down their presses. I mean simply that the severance payment agreements alone could make such a decision so unprofitable that it could bankrupt the newspaper chain. If this is the case, the newspaper chains will simply fund local news websites in the markets they don't own newspapers in and prepare for the day they'll have to shut down the presses of the newspapers they presently own.

There is another group that might view this as a great opportunity to get in on the ground floor: political parties. Each of them would want a local news website to be preaching their particular version of political events and providing their followers with a "trusted" news source. As for which political parties will be the first to attempt this, I would say the Libertarian Party and the Green Party are the most likely candidates. The reason is political. Until the local daily newspaper is toppled, local politicians will still fear it. For a major political party to fund a local news website is thus a risky proposition. They know they'll make enemies of the local newspaper and TV newscasts and they'll rightly expect considerable retaliation. Only if all the local newspapers and TV newscasts are blatantly liberal or conservative will the oppositely-slanted major political party be willing to attempt such a bold move. However, because the mainstream media has largely ignored Libertarians and Greens, they have nothing to lose. In fact, if the daily newspaper and/or TV newscast starts covering them in a negative fashion because they started up a local news website, it's all for the good since in political debates, any coverage is better than no coverage. The Libertarians and Greens each also have their own strengths in starting such ventures.

The Libertarians basically rule the internet, as internet poll after poll indicates. The freedoms of the internet naturally attract them (and they're far more tolerant of its excesses) and they tend to be more future-oriented – and therefore more technologically savvy – than any other

party. Go to any Libertarian Party meeting, pick anyone at random, and there's a good chance you'll have picked a computer programmer.

As for the Greens, because local news websites are less damaging to the environment than local daily newspapers, they'll have an excellent pitch ("No forest was cut down for this news.") with which to raise money from their party members to fund the startup of their local news websites.

However, the Libertarians and Greens only have until the collapse of the local daily newspaper and TV newscasts to get entrenched before the Republicans and Democrats will come in full force with their own local news websites. Interestingly, unlike the Libertarians and Greens, the Republicans and Democrats will likely not publicly have close ties with "their" local news websites. The reasoning is that both the Republicans and Democrats are mainstream political parties and thus want to be viewed as moderates (conservative-moderates or liberal-moderates, but still moderates). For this reason, they'll likely let their well-known spokespersons (i.e., Rush Limbaugh for the Republicans and Christopher Reeve for the Democrats) endorse their local news websites than do so publicly themselves. After all, the Republicans and Democrats are not fighting to keep their followers loyal, but to swing the independents to their side. In the end, every city could have at least four local news websites competing against each other. This competition will be a good thing for all involved. Add into this mix a truly moderate local news website (or at least one with a mix of supporters of all four political parties) and you now have at least five local news websites for each city.

And all the above isn't just confined to the major cities. Any community large enough for a weekly community newspaper is a prime target for a local news website. And if a community newspaper contracts out their printing or if they're the local printer and they simply provide their local community with such a weekly newspaper as a public service, expect them to stop printing that newspaper and convert it to a local news website. In fact, due to the very low overhead operating costs of running of local news websites, communities too small to support even a weekly newspaper will get their own local news website. Residents (especially housewives and retirees) of these small communities will view it as a volunteer effort and good for community spirit. At the very least, local high schools might make this a service they provide for their communities and use it as an educational tool for their students. And the high schools that do this won't just be in tiny communities either. Big city school systems will likely create citywide high-school-run local news websites where high school students get experience as journalists and compete against the other local news websites.

COMPUTER GAMES

Hurt even more than movies, the computer gaming industry is being decimated by p2p piracy. Within twenty-four hours (or faster ... even prior to the official retail release isn't uncommon) of any new computer game release, pirated versions are available for free over all p2p networks. For a long time, computer game companies have tried to make it harder and harder to crack and pirate their games. Unfortunately for these computer game companies, all encryption programs have been broken and often quickly at that. As a sign of the times, some

computer game companies have now just given up and are essentially just hoping enough people will do the right thing (in the company's opinion) and pay for the games they play. However, there is another way to generate profits for computer game companies.

Product placements are ideal for almost any computer game. The amount of involvement players have with their games is massive. More massive than with any other medium. As a result, you would think that major advertisers would be very interested in getting product placements in these computer games. In this regard, the Achilles' Heel of computer games is numbers. Even the most popular games rarely sell more than a million copies. Any broadcast prime-time television show numbers their viewers in the several millions each episode. So to realistically attract advertisers, computer games need to attract several times more players than they currently get.

The only way to make this possible is to offer the computer games free over the net. Only then will they get the numbers that will make these games attractive to advertisers. Unfortunately, this creates a Catch-22 situation for computer game companies. Advertisers are not presently interested in paying for product placements in computer games because of the small number that play any particular game. Computer game companies cannot offer their games free to get the large numbers until advertisers pay for product placements in them so the games can be offered free and still turn the game company a profit. Catch-22.

How this Catch-22 situation will be solved will be by a computer game company breaking the ice with a sequel or expansion to a very popular computer game. For example, if Maxis were to offer the next expansion of The Sims (currently the all-time most popular computer game series) for free. In fact, The Sims would be an ideal game to do this with. Its world is the present-day and the game is largely about getting stuff for one's home and characters, giving it the potential for tons upon tons of product placements. The job of Maxis will be in convincing major advertisers of the massive numbers of people that would play The Sims if it were to be offered free. And to do this, they would need to include the original game and all expansions up to the free expansion in the free release. In other words, they need to offer the whole game or they'll only get those that already bought the original thus greatly limiting the potential of the free release.

Once a computer game company is able to show a profit and satisfy advertisers by doing the above, all other computer game companies will try to follow suit. Those who cannot interest advertisers or try to hold onto the old system of charging the public for their games will quickly die out. The key for the computer game companies is getting experienced sales personnel to go after product placement advertisers. Don't be surprised if movie studios start screaming and complaining that the computer game companies are hiring away everyone in their product placement sales departments. Don't be surprised either to hear that several computer game companies are relocating to Cincinnati, Ohio ... the corporate headquarters of Procter & Gamble, one of the world's largest advertisers.

There's also a special type of computer game called Massively Multi-player Online Role-Playing Game (MMORPG). These MMORPGs are games where you play with others over the net. The current reigning champ of MMORPGs is EverQuest, with over 400,000 subscribers.

Presently, these games charge a monthly fee to play them. They too will be affected by the P2P Revolution. How they'll be affected is through the advancement of p2p programming that will eliminate the need for the MMORPG company to maintain servers for their players to play through. If MMORPGs can be run by p2p network-like systems, the cost of operating a MMORPG will be drastically cut. However, it will be a difficult p2p program to write. The difficulty is preventing players from "cracking" the game and giving themselves an unfair advantage over players who haven't. However, in discussions with network programmers, I am told it isn't an impossible problem to overcome. Once it is, advertisers can be brought onboard to pay for product placements and these MMORPGs can then be offered free to the public. Once free to the public, MMORPGs will explode in popularity.

And it should be noted again that product placement doesn't just mean – in the case of a computer game – that your character needs to use the product, but simply that the advertiser's product image or logo could be on a billboard in the game world. And for those game worlds not based in the present day, they can also do product placements ... and likely have even more fun with them. For example, EverQuest is a light-hearted high-fantasy game (think medieval wizards and dragons ... i.e., Lords of the Ring). It could advertise Coca-Cola in a number of ways that would make the players smile. For example, a special rejuvenation potion could be in the shape of the classic Coca-Cola bottle and given a fancy tongue-in-cheek name like "The Essence of Coca and Cola". For a MMORPG based in the Wild West, not only could you do tongue-in-cheek retro versions of present-day products, but you could also get advertisers that existed back then to advertise their product(s) as they were in that era. For example, in a Wild West game, you could advertise Levi's, which existed back then.

The biggest losers will be the distributors and retail stores. However, only if a retail store specialized in computer games would it risk dying. On the other hand, game distributors will die and their deaths will have more impact than you might at first think. Distributors are currently one of the main moneybags for the computer gaming industry. They provide the money to get the games made. Many computer game companies are also partially owned by their distributor and/or have ironclad contracts with them. Distributors will be opposed to giving away games for free over the p2p networks and may try to force the game companies they have influence with not to go that route. The game companies that listen – or, due to the distributor being the controlling stockholder in their company, have to listen – will hurt themselves as they're left behind by the other computer game companies that don't. Those that never make the switch will simply go out of business in short order.

COMICS

The age of the paper comic book is about to end. More and more comic artists are setting up their own comic websites to showcase their work. In the recent past, the ones that tried to charge for viewing their comics couldn't stay afloat and died off. However, the ones that allowed free viewing of their comics and instead made their profits from memorabilia sales are not only still up and running, but they're thriving.

It is critical that the artist provides their net comic with features, characters, and a style that is unique. It is this uniqueness that leads to merchandise sales of coffee cups, mouse pads, posters, key chains, and so on. The key is having a simple suggestion box on their comic website for fans to suggest products they'd like the creator to offer.

However, merchandising by these comic artists is still in its infancy. They're doing it in a hit-and-miss manner. Fortunately, it won't be too long before custom merchandise makers discover the sales opportunities these comic websites represent. Once this happens, comic artists will have sales reps from these merchandise manufacturers making pitches to them: showing the artists the different products they can make available to their fans, the nice profit margins, and very likely offering to take on the entire financial risk in exchange for a licensing agreement. The big players in the custom merchandise industry might foolishly discount these small comic websites and just focus on the major movie studios as they do now. If these major manufacturers do this, they'll leave a nice door open for local custom merchandise makers to gain a foothold and eventually grow to become one of the majors' competitors.

Another source of revenue for comic artists is to be paid by conventions for attending them ... or bartering for a vendor booth spot and then selling one's memorabilia to the attendees.

Still another revenue source is product placements. However, for a comic to get these, they'll have to be wildly popular to have the numbers to attract the major advertisers. Product placements are something that comic websites will build toward. However, along the way, they might be able to interest minor-league advertisers to take advantage of them while they still can. These minor-league advertisers would be hoping to ride the comic websites to new heights and benefit in the bargain by growing themselves.

As for what will happen to DC Comics and Marvel Comics, they'll still exist by becoming comic websites just like the others. However, it will be interesting to see which of them stops their paper presses first. My bet is Marvel as they have a history of breaking new ground and DC following them.

Will p2p play a part in all this? Yes. If fans of a comic can only download that comic from the comic's website and that comic becomes popular, the internet traffic bill of fans doing so will eat up all the profits and kill the comic website. However, if the artist puts out the latest installment of their comic series on p2p networks, they only need a small cable modem or DSL connection to get their comics out there. The p2p networks will do the rest. The only thing the comic artist needs to do is create a producer p2p software program that helps their fans learn about, find, and download the latest installment of their comic heroes from the p2p networks.

NOVELS

By and large, books haven't been hit as hard as any other member of the data entertainment industry. It isn't because books cannot be easily copied and distributed. It is mainly because the hardware that makes it enjoyable to read such pirated books isn't around yet.

People like books for a reason. Books are a certain shape for a reason. They are compact. They fit nicely in your hand. They don't weigh a ton. They're easy on the eye. You can read them anywhere ... in a chair, on the toilet, in your bed, on the train, at the beach.

The problem with ebooks (electronic versions of books) is that you need to read them at your computer desk. While computer desks are fine for work and games, they're hardly a preferred place for reading long novels. They force you to be immobile ... whereas printed books let you be highly mobile.

For ebooks to ever take off, their hardware needs to be as mobile, light, and rugged as paper books. Attempts have been made in recent years to create monitors that are as nice ... even nicer to hold than paper books. No one has yet achieved the perfect balance of shape, weight, feel, and size. However, it is only a matter of time before they do.

Then again, there are compact computers that almost perfectly fit this bill. One example is Palm Pilot. It will be these handheld computers that will bring about the P2P Revolution in the book industry. In fact, they're already starting to do just that.

The key to them really taking off is simply getting them in the hands of the public. This is slowly happening as prices for handheld computers are steadily dropping. When they get to the point of being so cheap that other types of businesses will give them away as gifts and enticements, ebooks will finally take off.

Are handheld computers already perfect for ebooks? No. Their monitors need work to enable them to be easy on the eye and clearly readable in bright daylight. Presently, handheld monitors are fine for short time uses like checking one's appointments, looking up someone's address, etc. However, when you read a book, you will be looking at the monitor for hours on end. The handheld monitors need to be improved before this is an attractive option. However, this is a relatively easy thing to do and thus will likely happen shortly.

And some handheld computers can and will offer features that books can't. For example, they don't need an outside light source so you can read in bed without a light on ... which someone sleeping in bed next to you will very much appreciate. You'll also be able to take a book out at night and read it under the stars or read it in the car at night without turning on the interior light and hampering the vision of the driver.

And certain improvements will need to be incorporated into handheld computers to make them even more attractive than paper books. One such feature is a built-in dictionary. As you're reading along and come across a word you don't know, this feature will enable you to click on

the word and a dictionary button. The word's definitions will then pop up and there will likely be an audio file that will pronounce the word for you so you know what it sounds like.

Another feature could have your handheld computer reading you the book as you drive your car, walk your dog, or cook in the kitchen. The blind community will naturally appreciate this feature as well.

Still another feature could enable you to highlight passages in a book and then display all these highlighted passages together for quick review. Even highlighting and sending them to a friend in an email ... or to yourself for later inclusion in a report with all the reference notes automatically included in the email.

And some handheld computers will even keep track of your reading speed so you can learn what it is. For some people, this will just be a fun fact to know. Others will want to improve on it and handheld computer makers could include a series of speed-reading instruction programs with each computer sold.

So how will authors profit from all this? Currently, authors make their main income from book royalties. Those royalties will disappear once the P2P Revolution hits the book industry. Book publishers, distributors, and bookstores will go out of business like so many other middlemen killed off by the P2P Revolution. The approach authors will need to take is a combination of the approaches used by comic websites and touring music bands.

Authors will increase the amount of artwork in their books – not only cover artwork but throughout the book. At the very least, art will be added to the beginning and/or end of each chapter. The goal will be similar to the comic websites: making the artwork unique so that fans will want merchandise featuring the same style.

Another revenue source will be conventions. Just like touring music bands, authors will need to get out and physically meet their fans. These conventions will replace book signings at bookstores. And the conventions will pay these authors to attend, using the author's appearance to draw in her/his fans to the convention. Since the average author only makes on average \$5,000 off each book s/he sells and conventions pay at least \$1,000 (plus travel and housing expenses) per weekend appearance, it is easy to see how a mere five conventions in five weeks would make as much for that author as the book would have made under the old book retail system. However, if the author doesn't write popular books, that author doesn't get invited and paid by conventions to make appearances.

And it won't take long for authors to realize that these convention promoters are making good money off their presence. The authors will then begin starting up their own conventions to cut out this middleman. For well-known authors with popular book series, they'll be able to form conventions just around themselves. For minor-league authors, they'll need to join up with other authors like themselves. Authors that are known for a certain genre and then they create genre conventions. The group of authors would then tour the world, creating a series of genre conventions for them to go to on weekends ... with the authors working on their next novels during the workweek. The profits from these conventions will then be split amongst the authors

and will be their biggest source of income. These authors will then promote their conventions in their books, on their websites, and through email notices to their fans. Oh, and the above will also be done by non-fiction authors in like fashion.

A third source of income for fiction authors can be product placements. This, however, will only be available to established authors with a popular book series. For example, when John Gardner took over writing the James Bond book series, Saab paid him to have 007's private car be theirs. This is still pretty much an unexplored territory for product placements ... but it does hold potential.

PART THREE & WHITE PAPER CONCLUSION

File-sharing is here to stay. Only an oppressive totalitarian government could even hope to try to prevent it from happening within its borders. The US will never get to this stage and thus the data entertainment industry must adapt. Those that adapt to the P2P Revolution will survive and thrive. Those that don't will die. It's just that simple.

And what the US Congress does or doesn't do is almost meaningless. Already, data piracy is illegal and more laws won't stop it. If the reactionaries in the entertainment industry try to hold ISPs responsible for any data piracy done by their subscribers, it will be defeated in the Supreme Court on a number of points. However, it doesn't even matter if the Supreme Court lets such oppressive guilt-by-association laws stand. People will find a way around any law and data piracy will continue unimpeded. The only thing Congress will do by acting in this fashion is hurt the US entertainment industry. Yes, the very industry that's currently screaming for protection. The reason is simple. Anything that Congress does which tries to fend off the P2P Revolution just means it is giving the rest of the world a chance to leap ahead of the US entertainment industry.

What all data entertainment companies need to do is stop listening to the naïve ranting of the reactionaries and take a pragmatist stance on the issue. They need to adjust to the reality of the P2P Revolution as I have outlined in this white paper. In addition to all the ways I've already stated in this white paper, there are three general things all entertainment companies can and must do. In fact, these are things that all internet providers, power companies, advertising firms, newspaper chains, and major advertisers also need to do: first, have outspoken advocates of the P2P Revolution on their Board of Directors; second, make sure all their company's executives are pro-p2p; and finally, be aggressively taking steps to be a pro-p2p company.

If you own stock in an entertainment company, internet provider, power company, newspaper chain, or major advertiser, you need to find out where they stand on the P2P Revolution. Don't accept lip service. Accept only action. Have the anti-p2p members been kicked off the Board of Directors and have pro-p2p advocates been put on it? Has the CEO issued a pro-p2p statement or does s/he still toe the reactionaries' line? If this free-to-distribute white paper becomes popular, is it available for download from their website? Does the company fund anti-p2p or pro-p2p organizations? If the company you own stock in looks like it is anti-p2p, sell off all your stock in it as quickly as you can ... especially if it is an entertainment

company since their stock will soon be worthless. Take the proceeds of that stock sale and invest it into a pro-p2p company. Only listen to the reactionaries if you want to kiss your money good-bye.

The P2P Revolution is beginning to happen as you read this white paper. It is inevitable. It is unstoppable. It is the future.

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