



The Movies Meet Web 2.0: Lance Weiler on the New Economic Model for Independent Cinema

Published: August 08, 2007 in [Knowledge@Wharton](#)

Producing a feature-length motion picture is a daunting task. All the more so if you do it without the support of a major studio using money you have raised yourself. But according to independent filmmaker Lance Weiler, "the real struggle" comes after the film is completed. Distributing a theatrical feature -- and doing so profitably -- poses an even greater challenge. As Weiler put it during a recent interview with Knowledge@Wharton, "making the film is easy in comparison."

Weiler believes he has a solution. By expanding the movie into an interactive theatrical event that can leverage such "web 2.0" concepts as user-generated content and viral marketing techniques, Weiler has carved out a niche that he believes provides an economically viable model for independent cinema.

*Weiler knows a thing or two about movie production and distribution. Along with former partner Stefan Avalos, he wrote, produced and directed *The Last Broadcast*, generally recognized as the first "desktop" feature film. Shot on digital camcorders and edited on a personal computer -- way back in 1996 when this wasn't such an easy task -- the cost of the entire production was less than \$900. To keep expenses to a bare minimum, the two writer/directors also played lead roles along with friends and colleagues.*

*In the form of a pseudo-documentary, *The Last Broadcast* is the story of a group of young people who carry video cameras into the wilderness to uncover the truth behind a disturbing local folk legend and are then brutally murdered. Both the story and the style of the movie bear more than a passing resemblance to *The Blair Witch Project*, released the following year. *Blair Witch* went on to gross nearly \$250 million worldwide while *The Last Broadcast* became a minor footnote in film history.*

*But the inevitable speculation about how *The Blair Witch Project* may have been influenced by *The Last Broadcast* has tended to obscure what may be Weiler and Avalos' most significant contribution to cinema history -- pioneering digital distribution. After finishing their low budget production, Weiler and Avalos balked at the prospect of spending thousands of dollars to transfer the movie to film for theatrical presentation. Instead, they partnered with Digital Projection, which had developed a digital cinema projector based on Texas Instruments' DLP (digital light processing) technology. On March 9, 1998, *The Last Broadcast* debuted at the County Theater in Doylestown, Pa., using the new technology. With the national release of *The Last Broadcast* seven months later, the movie became the first feature film to be distributed digitally to multiple theaters, introducing a new era in movie distribution.*

*To support his next feature, the psychological horror film *Head Trauma*, Weiler is supplementing the film with live music, props and effects in the theater, actors interacting with the audience outside the theater, and audience participation through cell phones. Weiler believes that this combination of cinematic experience along with live,*



This is a single/personal use copy of Knowledge@Wharton. For multiple copies, custom reprints, e-prints, posters or plaques, please contact PARS International: reprints@parsintl.com P. (212) 221-9595 x407.



interactive elements -- what he calls a "cinema ARG" or "alternate reality game" -- provides an economic model for independent cinema that is more lucrative than standard theatrical distribution, and can help an independent movie cut through the clutter of big media marketing to reach a loyal and profitable niche audience. This participatory version of Head Trauma debuted at International House in Philadelphia on March 31 and played in an expanded version at New York's Museum of the Moving Image on July 14. [See photo essay: [Lance Weiler's Cinema ARG at the Museum of the Moving Image](#).]



[Photo essay: Lance Weiler's Cinema ARG at the Museum of the Moving Image.](#)

Knowledge@Wharton recently sat down with the 37-year-old Weiler near his home in Bucks County, Pa., to discuss his ideas on independent movie distribution and how he hopes to find a sustainable economic model for independent filmmakers. An edited version of that conversation follows.

Knowledge@Wharton: How did you become a filmmaker?

Weiler: I started with still photography. My dad was an amateur photographer and I worked with him in his darkroom. He gave me a camera at an early age and, by the time I was in third grade, I had single-lens reflex cameras with interchangeable lenses. By junior high, I was selling my photographs.

Then, in high school, I fell in love with film because I realized it was 24 still frames per second, and I started making my first films.

I originally thought I was going to be a photojournalist. I was drawn to documentary films -- like *High School* by Frederick Wiseman, which [was filmed] in Philadelphia.

What really moved me was the collision of photojournalism and documentary film. I think that is where *The Last Broadcast* came from later on.

Knowledge@Wharton: Were you then shooting on Super 8 or 16mm film?

Weiler: I bought a windup Bolex 16mm camera with money that I had saved. I would get in trouble for processing film in the bathtub -- which isn't too environmentally sound, but at the time I didn't know any better.

And then I got interested in docs [documentary films] and experimental film. When you ask people what movie they have seen the most, some people will tell you something like *Star Wars*. The film that I have viewed the most is [the avant-garde abstract] film by Stan Brakhage called *Dog Star Man*.

Knowledge@Wharton: How did you get the idea that you could create a movie digitally using camcorders and a PC?

Weiler: It really came out of the frustration with the [filmmaking] process. [My partner] Stefan [Avalos] had gotten screwed over for the distribution [of his first] movie. I had been trying to raise money to shoot a science fiction film that I wanted to do on 16[mm film] and I could not raise enough money.

Stefan was always interested in computers. I became more interested as I was reading about advancements in technology. And -- I'll never forget -- I was sitting in the train station after working a long day and I picked up a copy of *Videography* or some computer-related magazine. As I was flipping through [the pages] I read about this new [computer] board that would allow you to capture video.

That was a pivotal moment. My head started spinning about the concept that maybe I didn't have to rely on the economics of film. And Stefan and I began building our own computers [with this] board and started struggling through a lot of very early desktop editing stuff. Then it became: "Well, we have these tools, why don't we see if we can make a movie?"

The Last Broadcast really started as a lark. It was to say, "How little can we make a movie for?" When

we totaled it up, it was something like \$860, which we rounded up to \$900.

Economics was at the base of it. We wanted to do something [to reduce] the cost of making the film. [Once] you've done the movie, all the festivals [would say], "If you want to show it, you have to take it to a print," which was a \$30,000 to \$40,000 investment, something we didn't want to do.

It's funny when you look back at that little movie. Ironically, [later, people] would say that *The Last Broadcast* became "the first broadcast." It was the start of the digital revolution in filmmaking. Basically we were saying: "This is stuff anybody can get -- it's all within reach and now you can make movies." It was that simple.

Knowledge@Wharton: How long did it take to make *The Last Broadcast*?

Weiler: We started the film in the fall of 1996. The movie had its premiere to the public in the spring of 1998. The movie took a long time because we created our own [techniques to make the image] look different from the way video looked at the time.

We were working with 166 megahertz systems with 48 or 64 megs of RAM [system memory]. For us to render the "film look" that we came up with, took over 80 days.

We were done with a cut of [the movie] in 1997 but we were then trying to work out exactly how we would screen it.

Knowledge@Wharton: While you were working on the movie, were you thinking about how people were going to see it? Since you weren't working on film and all the theaters had film projectors -- how did you think your movie was going to get seen?

Weiler: We had started reading about new [DLP-based digital] projection technology. At that time the market was stagnant. Everybody was talking about digital cinema, but nobody wanted to take the first step. It was a chicken-and-the-egg thing.

So we thought, "Maybe there's a fit here. Why don't we try to demonstrate a business model for this?" Knowing that it was stalled on the studio side, [we realized] there might be a window of opportunity there.

But outside of that, we weren't really sure. It was like, "Well, maybe we'll end up showing it on bad projection or projecting it off of Beta SP."

Knowledge@Wharton: You finally did a theatrical projection with DLP projectors?

Weiler: Yes. It didn't come together until the very end. It was very dramatic: "We're getting closer to the date, closer to the date." And we didn't have the money yet to do it.

We were talking to this satellite company and they started asking about who else we were talking to. [When] they started naming other satellite companies, I kept saying, "We can't talk about that. We can't talk about that."

And [when] they [mentioned] their biggest competitor, I said, "We have to go now; we can't talk anymore." We got off the phone and my co-producer said, "What are you doing, are you crazy?"

And I said, "We should just wait. I think they're going to come back." And sure enough, they called back in like a half an hour and they doubled what they offered. We ended up working with them.

Knowledge@Wharton: How did the funding work for the digital projection?

Weiler: It was a sponsorship, basically. We reached out to a number of [companies] who were building a projector around the DLP chip. We [sent] them a form letter saying, "We have this movie, it's like cinema from the past meets cinema from the future." We thought it was a great concept. And it was just like crickets -- nobody responded. We were like, "Wow, this is such an opportunity; why won't they respond?"

It was getting close to the time when we needed the projection to show at the County Theater in Doylestown. I took the form letters I had written and I purposely mixed the address labels so [each] would go to one [company] but it would have their competitor's [name] on it so they would know I was talking to other people.

Then they all called. We ended up with a free projector anywhere in the world for two years. And [based on] what we did together, Digital Projection took the projection into the Sundance Film Festival and did [work] with the Academy Awards and the Emmys.

Knowledge@Wharton: What's the outlook now for getting an independent movie distributed?

Weiler: The problem is that what we helped usher in is now creating a bottleneck. So many people are making work and the production costs have been reduced so much, that the volume of work being made can't fit the current release structure. It's overburdening festivals, there's not enough shelf space in retail or rental outlets, and the promise of digital distribution just isn't quite there yet. You have a flood of work, but not enough outlets.

Knowledge@Wharton: But there are now a number of distribution options: the web, DVD, theatrical presentation. What are the pros and cons of each of these?

Weiler: Theatrical is very difficult unless you have P&A money -- "printing and advertising money" -- where the studios say, "We'll put in \$20 million or \$30 million to promote this film through traditional outlets -- ads in newspapers, radio, TV and some basic online component."

For an independent filmmaker, theatrical is a difficult proposition because you are competing against [the major studios]. When you can get booked into a small art house cinema you are fighting against this huge promotion machine that's basically '*Spider-Man 3, Spider-Man 3, Spider-Man 3.*' And you have this little [movie] that you are trying to attract people to. So theatrical [distribution] is very difficult.

Knowledge@Wharton: Your interactive events based around *Head Trauma* are essentially theatrical presentations. How are they different from a standard theatrical release of a movie?

Weiler: *Head Trauma* and the cinema alternate reality game -- the "cinema ARG" -- invert the typical theatrical relationship. When I did the 17-city theatrical release for *Head Trauma*, it was a 50-50 split. I didn't 4-wall any of the screens -- 4-wall is when you rent the theater and get 100% of the box office. But you've laid out the cash, so it's a dangerous proposition.

I came out ahead for the entire theatrical [run], but with this event-driven model I've inverted the relationship. Now they are [giving me] a minimum guarantee. So before I even step foot into the building, I've already done better than I was doing theatrically in a week-long run.

Events are interesting for independent films, because you have to try to do something different from what's happening in the market.

Knowledge@Wharton: But in the case of the *Head Trauma* ARG, you have musical performers and a bigger ensemble involved in the presentation. Aren't your overhead costs higher?

Weiler: It depends on how you structure it. If you find the right partners, you can get away from a lot of the really hard costs. We put on [the debut event in Philadelphia in March] for next to nothing. I came out ahead and everybody got paid. Outside of the band's performance and what they had to pay, I maxed out on rental [costs] of like \$150 for amps and that was it.

Everything else was stitched together from things that I could borrow or what-not. In New York [at the Museum of the Moving Image] it's a little bit different. Now there is a larger guarantee that we walk in with. So now there's more money to do things.

Knowledge@Wharton: How does the guarantee work?

Weiler: It is basically a minimum guaranteed [payment] -- saying, "[We'll give you] \$2,000, \$3,000,

\$4,000 to do this event. Once we break even on what we've paid you, then we do a split with you." So it's a much better relationship, because you know that you're making that money when you come in. It's not as speculative as trying to get people into the theater.

Knowledge@Wharton: Looking at other distribution methods -- what about releasing on DVD?

Weiler: With DVD and physical media, shelf space is the biggest issue. A lot of the retail outlets are feeling the pinch, because sales in general of DVDs have flattened, with the exception of TV on DVD.

And then you have a format struggle between Blu-Ray and HD DVD, the two high-definition formats. So what was limited shelf space to begin with is now [seeing] encroachment from those [media]. And if you're not putting money towards marketing or promotion within the stores -- like paying to have an end cap [display at the end of the aisle] -- then you're just taking up space. They can make more money off someone else.

Rental has gotten to a point where now [they are] trying to get you to "spindle" your product -- which basically means that for the honor of throwing away the box, they are going to cut your price by 60% for you to give them just the disc and the artwork. And maybe if you have enough muscle, you might be able to "rev share" [revenue share] with them, but then you'll have to deal with collecting those royalties later.

So at one point when we were doing *The Last Broadcast*, we had more than 100,000 units that we were moving into the marketplace in a short period of time. With *Head Trauma*, I'm somewhere around 25,000 units, which a couple of years ago would have been around 40,000 or 50,000 units. So there's definitely been a consolidation within that industry.

Knowledge@Wharton: Don't online sales of DVDs help to resolve the shelf space problem? Aren't Amazon.com and "long tail" retailers creating a new distribution channel for physical media?

Weiler: Yes, you have interesting new models and, for *Head Trauma*, the larger amount of sales for the physical media came from online.

Knowledge@Wharton: Within DVD distribution there is a range of options. [Your former partner] Stefan Avalos' most recent film, *The Ghosts of Edendale*, was distributed through Warner Home Video while *Head Trauma* and the re-issue of *The Last Broadcast* are both from Heretic Films, a much smaller niche-genre distribution house. Isn't it better to have a deal with Warner Brothers?

Weiler: Because so many things are changing, having a fluidness over the ownership of the rights and being able to anticipate where the market is moving were more interesting to me than me giving away all rights to the film for 15 or 17 years for a hundred-and-some-thousand-dollar advance.

Knowledge@Wharton: That's a typical deal for a big label distributor?

Weiler: For an independent film, yes, unless you have some incredible amount of heat coming off it.

A lot of times what happens is you need to deliver the film with the advance that you're given. If you need to clear music, do sound transfers, do film transfers, whatever, you're basically paying out of your advance to do that. So if you look at a \$100,000 advance, it takes you about \$30,000 to \$60,000 to deliver the film and you're looking at \$40,000 on the other side. What's the benefit to having a large studio's logo in front of your film?

The economics just don't make sense -- or they didn't make sense to me. I knew that I could do a lot with the movie that other people wouldn't let me do, like the cinema alternate reality game that I couldn't have done if I had given [the rights] to some of the people who wanted the film.

So from my perspective, I said, "I want to carve up these rights," because then I have a better shot at increasing the profit; I have a better shot at being able to try interesting new things. To me, that was more valuable.

Knowledge@Wharton: So the distributor has the rights to distribute the DVD, but you retain rights for other uses?

Weiler: Yes, exactly.

Knowledge@Wharton: And a deal like that would be hard to strike with a big studio label?

Definitely. They want the world -- as they say, "the universe." So if we colonize the moon, when people are waiting at the moon station and they want to watch something -- they want those rights. They want to own it.

Knowledge@Wharton: What's the outlook for digital downloads?

Weiler: The prospect of digital downloads -- whether it's Amazon's UnBox or MovieLink or iTunes -- increases your profit margin by [eliminating] the physical media.

But I think we are in this awkward period where until that final leg of the living room is worked out, and it's easy -- I mean like really simple and idiot-proof -- then you're not going to see much [other than] early adopters purchasing online. It's a lot different than music.

But when you look at web 2.0 and social networks, it's like this playground of things that you can use to build your audience and promote your work. And it's free for the picking. It's stuff that you can use. The cost is relatively inexpensive.

I think the future is the direct-to-your-audience [model]. As the filmmakers start to build audiences, if they can figure out ways to cross-pollinate those audiences, then they start to build volume. At that point, they don't need as many of the middlemen that have typically been in line to take the money before they see any return, if ever.

Knowledge@Wharton: So, at least right now, the web is more helpful in marketing a film that may be distributed through other venues than it is for distributing film itself?

Weiler: Yes. At this point in time, that's correct. The architecture isn't fully there yet. The deal terms haven't been fully fleshed out -- which is encouraging. Because there are times when a window opens up, and if you're smart about how you leverage it, there are tremendous opportunities.

There are opportunities for revenue that fall between the traditional cracks -- places that you didn't even think you would find revenue. I think that's what's exciting.

Knowledge@Wharton: So, producing a movie has become much easier -- the equipment is cheaper and the PC tools are much better. But on the distribution side there are all these constraints. The web isn't there yet because it isn't linked to your large-screen TV. You have the shelf space problem with DVDs. You have the difficulty of competing with the big studios' distribution houses for a theatrical run. What's an independent filmmaker to do?

Weiler: [It's about] the one-to-one relationship with the audience I was discussing. When I did the theatrical release across the country, I didn't spend any money on P&A. I used social networking. I used an "embed and spread" campaign, where I took assets of the movie -- digital swag -- and gave that to people to put on their [web] pages, and they amplified my message. So then more people were coming back to the movie.

To me the future of it -- or at least one component for independent film -- is the ability to harness that audience and build it over time.

It's not that dissimilar to what musicians have been doing by going out on the road to support their work.

Television is difficult to get into, and it's next to impossible for independent film. And even if you get a deal, [the revenue] will be so low that by the time you get E&O -- which is errors and omissions insurance -- that's going to eat up the majority of what you're going to make.

For independent film, a way to circumvent that is to just go directly to the people. It's the power of the niche. That is where I think independent film is headed. Publishing is headed there. Music is there. Film has started to get sub-genres, and you see how those sub-genres have risen up -- whether it's

African-American cinema, Latino cinema or gay and lesbian cinema. You've seen them start to fill a market that wasn't being served.

Knowledge@Wharton: What you are doing with the *Head Trauma* ARG might be called "participatory cinema," but it's not entirely "immersive cinema." When a phone number flashes on screen and audience members call it on their cell phones [as at the Philadelphia event], they step outside the film.

Weiler: [The debut of the *Head Trauma* ARG in Philadelphia] was very much like a beta test. In the future versions of it -- like at the Museum of the Moving Image in July -- we will start to integrate more.

I want to string a narrative across multiple outlets -- have these touch points and create a sensation where you feel tension or surprise. And you want to share that with someone else so you introduce them to it. So it has that viral aspect to it.

In the future, it becomes more of a participation from the audience members but in different ways, not necessarily when they are watching it, but after they leave. It could be phone calls, text messages or things that lead them online and then allow them to remix some of the elements. [They] start to contribute to the storyline and then it grows.

When we take it to other places -- Europe and possibly South America -- the town where we are screening will become a game and people will be hunting down characters from the movie. There will be clues throughout the town that eventually funnel you into where the event is.

I'm interested in that idea of expanding the narrative experience. I love the passive [viewing] experience of cinema. I think it's amazing. I'm just trying to find interesting ways to interact with the audience so they are more likely to engage in the story and maybe tell somebody else about it.

Knowledge@Wharton: Is this "cinema ARG" approach interesting simply because it is different, or is it a trend that will continue to expand? In the future will the movie be just a slice of a much larger experience?

Weiler: From a business perspective, I think it definitely will be.

If you look at what [traditional film distributors] do currently and the amount of money that they throw against P&A, for example -- What if they took that money and they actually built all these other properties? You [can] operationalize this and actually use it as a more effective way to promote work.

That could be for TV shows like "Heroes" or "Lost" or it could be for music or for large films like *Spider-Man* or independent films. When you get to the end of a film like, let's say, *Spider-Man 3*, you know *Spider-Man 4* is coming, right? You know there is going to be *Spider-Man 5, 6, 7*, whatever.

What if the experience away from *Spider-Man* is only building more interest and [adds] more value to the property because it engages people for [additional] elements of the story? It is hinting at future versions of the story or giving them back-story that they have never seen before. It can enrich the theatrical experience.

Film can benefit from a story perspective but also from a business perspective. If you're creating a massive multiplayer game online or an ARG or other things, they are effectively properties. You could then take characters and bring them into something like an Xbox environment. So now that character could be within a game.

There is a lot of potential. What I'm getting at is that promotion and marketing by just throwing stuff at people is only going to go so far and will require more and more money. If you can find a way to "crowd source" what you're doing, you are effectively creating a model that can build story and build additional promotional value to you.

Knowledge@Wharton: Where do you see activities like the cinema ARG going in the future?

Weiler: The cinema ARG is a step towards an integrated media strategy.

You have NBC Universal bringing in someone like Beth Comstock from a different part of GE as president of integrated media. You're starting to see traditional media noticing [this trend] and realizing that there is value in these [new] devices and [new] ways to interact with the consumer, but not being really clear on how to get there.

The cinema ARG is a step where we are prototyping something, saying, "Here's another window of opportunity. And there is a solid business side to it."

Knowledge@Wharton: Even network television has started to expand the story outside the standard narrative format. For example, "Lost" set up fake web sites based on a fictional company in the storyline. When people go online searching for details of the plot, they find this fictional web site that fits into the narrative.

Weiler: In some cases, this is even being done by fans [of the series]. With the rise of user-generated content you have people who are going to naturally start to build their own stories around what you are doing.

People are not fully getting what they want [from the original content]. They want social interaction. They want to be able to contribute to the story.

Knowledge@Wharton: These techniques naturally fit certain kinds of narrative, such as [the television shows] "Lost" or "Twin Peaks," where the open-ended mystery lends itself to this type of exploration in other media. But is there a down side to this approach? Part of what makes a great film is a tight narrative structure built on a story arc.

Weiler: What's not to say that stories break off from that narrative? Now you can have a character who might not have been a main focus of [the movie] -- and you're getting a different story. Maybe you want more from that experience. I don't think it has to be and/or.

If you look at the Internet and what the interaction patterns are, what people do online, you can see that there are these natural extensions that can work for all different types of films or stories.

It could work for "CSI." It could work for "Grey's Anatomy." It could even work for game shows or reality programming.

Knowledge@Wharton: Much of what you did grew out of necessity -- because you didn't have a big budget or access to studio distribution. But now you have well-known filmmakers, like David Lynch, who are shooting on digital camcorders and self-distributing. Why would someone who has access to all of the resources of Hollywood go with the DIY [do it yourself] route?

Weiler: I think it's ownership of the work. It's [control over the] final cut. They own the negative.

In the case of David Lynch, here is somebody who has been in the system for 20-some-odd years, has had success, is a household name but now he is realizing, "Wait, I am a brand. I have my own name recognition. If I am smart about what I do with that, I can live comfortably, do what I want to do and make the movies I want to make."

Look at the history of it. In the 1970s, or the late 1960s, with [the success of] *Easy Rider* and [the rise of the] youth culture, all of a sudden the studio realizes, "Oh my god, there is this whole niche audience." All of a sudden they wake up and realize, "There is a market opportunity we haven't been exploiting." And then you have this new wave of all these new directors who come in and they start making arguably some of the most interesting and challenging work of the history of cinema in a few instances.

Now we are at another point where that same type of artistic renaissance can happen again when somebody like David Lynch -- or even somebody you don't know -- has the tools and the ability to do it [in a way that] is not done by committee. What does that mean? You can have these amazing works.

And the sad part of that is the old adage that "the best bubbles to the top" is not relevant anymore with thousands of films being made and all the media that is saturating people. That's where that promotion and the marketing and being innovative and engaging the audience is so important. Now, when you

finish the film, you have two thirds more to do.

Knowledge@Wharton: What do you like doing most -- writing, directing or staging these theatrical events?

Weiler: I like all of it. I love making films. I love being in a collaborative environment.

I really have a love of story, technology and also business. It is interesting to look at things in those three ways because I think if you can take a creative approach to how you use the technology, how you tell the stories, then you can be grounded in an idea of how you might be able to create revenue around it. You are looking at sustainability and if you have that, then you can make any work you want.

Knowledge@Wharton: What are you working on now?

Weiler: I have a couple of scripts. A lot of the times I try to find something autobiographical in the work that I do. *Head Trauma* was based on the accident that I was in.

The new script is called *Black Hail*. It's a psychological horror film about the Appalachian Trail. I've hiked a good part of the Appalachian Trail. [The movie] deals with some of the stuff that I went through; it's kind of man against nature. And I have a couple of television show premises that I am working on and some more game-related stuff.

I think about all of it when I am starting now; I think about all the jumping off points. I am crafting stories in a totally different way.

Knowledge@Wharton: In *The Last Broadcast*, the character you play stages a live interactive media event that combines television, webcasting and Internet chat which has echoes of what you are now doing with the cinema ARG. Is this a case of life imitating art?

Weiler: Yeah, we were putting that stuff into the movie back in 1996. Now IRC [Internet Relay Chat] becomes IM [Instant Messaging]. Webcasting becomes YouTube. All that stuff meshes. It's like what I said earlier about Frederick Wiseman and my interest in photojournalism and my love for psychological thrillers all melding together.

We live in an immersive culture. You have to adapt to find interesting ways to tell stories. It's more work, but in the end it's more interesting.

This is a single/personal use copy of Knowledge@Wharton. For multiple copies, custom reprints, e-prints, posters or plaques, please contact PARS International: reprints@parsintl.com P. (212) 221-9595 x407.