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## Digital Filmmaking

With the advent of digital video and rapid advancement in computers, it is easier than ever to make a movie. Today, anyone with a camera, a computer, and an idea can shoot, edit, and distribute a movie. From 5 minute short films posted on YouTube to theatrically distributed, 3 hour long films, this technology has not only spawned new and budding filmmakers but has been embraced by seasoned filmmakers. While most major movies are still shot on film for aesthetic purposes, many big name filmmakers have completely abandoned the medium altogether for the ease-of-use and cost-effective nature of its digital alternative.

10 years ago, making a low-budget, independent movie usually meant spending thousands of dollars on a camera, film, and editing equipment alone or, on the other end of the spectrum, using the family VHS camcorder and editing between two VCR's. Today, with Mini DV camcorders, a computer, and editing software such as Final Cut, Avid, and Adobe Premiere, making a movie can be far more inexpensive. DV cameras can range anywhere from a \$100 for a low end camcorder to several thousand dollars for a higher end model. While you probably won't

be seeing your movie shot on a \$100 camcorder with your high school buddies at your local Multiplex anytime soon, the possibility of making a movie isn't out of reach.

Whether or not you shoot your movie on a camera you usually use for family vacations or a high definition studio camera, the media for digital video remains fairly inexpensive, especially in comparison to what you could end up spending if shooting on film. In addition to being inexpensive, digital video is far less constraining than film. For this reason, many filmmakers now shoot exclusively on video. While most prefer the look of film, digital is coming closer and closer every year. While it is possible to emulate the "film look" with today's software, the results are almost never indistinguishable to the well-trained eye. While some films may try to disguise the digital murkiness of video, there are those that revel in it.

"The quality is pretty terrible," says director David Lynch, "but I like that." (Wired) Lynch, known for his beautifully dark and dreamlike imagery found in such films as *Blue Velvet* and *Mulholland Dr*, Lynch is one of many filmmakers to make the switch to digital, likening film to a dinosaur in a tar pit (Slate). "When you have a poor image, there's lots more room to dream" (Cinematical). His latest feature, *Inland Empire*, was shot entirely on digital video using a handheld, consumer grade camcorder that costs for less than \$3000 (Time). "For me, there's no way back to film. I'm done with it," he told *Variety*. "Film is a beautiful medium, but it's very slow and you don't get a chance to try a lot of different things. With DV, you get those chances." Lynch is a good example of how a filmmaker can use computers and the internet to their advantage. Lynch's website, [davidlynch.com](http://davidlynch.com), is home to a variety of short films and experiments created by Lynch on digital video, making use of programs such as *After Effects* and *Flash*.

Another one of digital filmmaking's strong supporters is director Robert Rodriguez. Rodriguez, who owns Troublemaker Studios and his own visual effects company, Troublemaker Digital, produced his first film, *El Mariachi*, in 1992 for \$7000. "Now I could make it for \$70 bucks," he estimated. Aside from being cost-effective, shooting digital is also a far more liberating experience. In an interview with *Film & Video*, Rodriguez states "digital is immediate. We can move really fast. I liken it to moving at the speed of thought. As an artist, painter, you just grab the paint and put it on the canvas. Traditional filmmaking seemed like the exact opposite: it takes so long to do anything, you lose your groove. I've been trying to turn filmmaking more into the immediacy of playing music or drawing. The actors love it. While I'm still shooting, the guys upstairs [in Troublemaker Studios] can composite a shot and come down and show us how it looks. It's like real-time jazz."(studiodaily)

When it comes to post-production and digital filmmaking, the possibilities are endless. "In post-production, if you can think it, you can do it," says Lynch(Cinematical). Everything you see on the big screen can be done on a personal home computer. While professional editing software can cost upwards a couple thousand bucks, cheaper, even free, alternatives exist for those just starting out. However, for the more experienced, programs such as Final Cut Pro and After Effects are invaluable tools that can provide endless possibilities for filmmakers. Everything from editing, special effects, sound design, to even music can be done with a computer. "Desktop film making technology is taking the creative process out of the hands of the studios and putting it into the hands of people outside the studio", said Rodriguez at AMD's Global Vision Conference. He gives an example where if he needs to shoot at night and in the rain with shiny pavement and cars, it only requires a green screen. The rest is digitally layered in, saving actors from getting wet and lowering the cost to deliver a product to theaters(ZDnet).

For independent filmmakers, particularly those on a low-budget, the internet is a great method of distribution. A filmmaker no longer has to rely on film festivals to get their work seen. Sure, a film festival might still be a good idea since there's the possibility of getting picked up for distribution by a studio, but for short films and no-budget affair, the internet is probably the best way of finding an audience. When virtually everyone has access to the internet, where else are you going to find a larger audience?

There are many ways the internet can be used to distribute a film. For example, a person can make DVDs of their film using DVD authoring software and sell their movie online or offer it as a free, streaming download. Some websites, such as CreatSpace.com, allow filmmakers to create high quality DVDs for sale on Amazon.com that are produced and shipped as customers order them(Amazon.com). Anyone can create their own website to make their movies available to the world. Alternatively, pre-existing websites such as YouTube can also be a good way to finding an audience. Major studios have also been jumping on the bandwagon in recent years, offering TV shows and movies for online viewing, usually for a fee. Many have predicted the internet is the future of film distribution, that digital downloads will replace physical media. Whether or not this is true, online rental sites such as Netflix have already begun allowing customers to stream movies directly from the net.

Whether or not your movie finds its home on the internet, chances are it's not going to be seen by more than handful of people without some advertising. You can't just throw your movie up on YouTube and expect it to automatically get a million viewers. The internet can be a great place to promote your latest masterpiece. Hollywood has been pushing their films on the internet for years through pop-ups and banners or, even more recently, through complex viral marketing campaigns. However, you don't have to spend millions of dollars to advertise you movie. In fact, it

doesn't have to cost anything at all. The internet is full of message boards which can be used to spread the word about your film. Video sharing sites can be used to upload trailers and clips of your movie. There are plenty of ways one can get creative to advertise their film online and generate interest.

Regardless the method, computers and the internet play heavily into modern day filmmaking. Even a movie completely shot on film and edited using scissors and tape was probably written on a computer using a screenwriting program like Final Draft. While digital filmmaking completely replacing the traditional method has yet to be seen, there's no denying its popularity is on the rise. Many film schools are introducing digital filmmaking into their curriculum. New filmmakers are popping up every day because technology makes it possible to do what would have been an expensive, daunting task a few years ago.