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“Gutenberg's concept of movable type transcended the medium used for the printing itself. Digital, perhaps, may prove to be paper to celluloid's parchment.”
[Murch, 1999]

How Do We Teach “Film”making – Given the Rapid Changes in Digital Technology?

When we consider the future of filmmaking – as this is where we must begin any discussion of how to teach it going forward – the first thing to consider is the use of the word itself. “Film”making has become synonymous with the creation of the moving image, but it also is oddly coming close to eliminating film itself from the entire process. In the catalogue to her latest exhibit at the Tate Modern Museum, entitled “Film” [Dean, 2011], fine art filmmaker Tacita Dean and a several column long list of other notable essayists (including Godard, Spielberg, Scorsese and Keanu Reeves) write bemoaning the demise of film itself, as if it is a medium long gone to us. But none to my mind properly speak to the future of the medium we call “film”making. Obviously taking the film out of “film”making does not end the endeavor. However those who teach have the responsibility to their students to attempt to analyze if not jump ahead to respond to where the medium is going for the sake of preparing those students for the future they enter after graduation.

So what is the future of “film”making?

I argue that it is rapidly changing to what will soon be an entirely digital one and that this already has and will continue to change the nature of “film”making itself. Therefore the question arises – does this mean we need to fundamentally change the way we teach “film”making as well?

In order to discuss “film”making as a whole, first we should break down the process into its core skills, namely: Producing, Writing for Screen, Storytelling with Camera, Directing Actors, Design, Picture Editing and Sound Design, and then in many cases, Producing again. This breakdown is not to diminish any of the additional technical skills involved in the creation of a film but to attempt to capture the essence of the process without a breakdown into Head of Department roles which all overlap in the process of collaboration.

Out of these seven, picture editing and sound design have been completely digitalized for some time now. The advent in the industry of non-linear computer based editing and Pro Tools software, approximately twenty years ago, changed the entire nature of those practices. However, for the most part – and especially in narrative film - picture acquisition remained the same and as such the principals of film production methods barely budged in response to the revolution taking place in the cutting rooms and sound booths. And it seems that without this step, filmmaking was not being actually considered to be a digital act of creation, simply one that was supplemented by a few tools. Now, however, all of

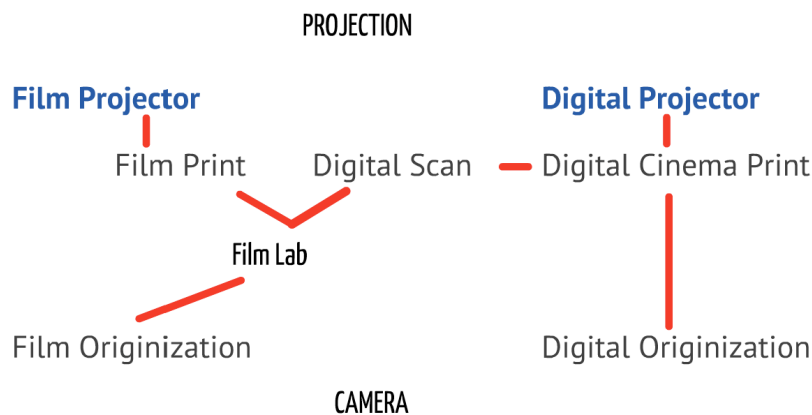
that is going to change entirely.

Looking at the remaining five skills, each is being affected by two significant trends currently sweeping the landscape. The first is in the area of Storytelling with the Camera. In this area, there are many aspects potentially to consider – shot choice, framing, composition, camera movement and blocking, lighting and exposure, and acquisition format/stock choice. However, it is this very last point that should be of more concern over every other aspect in this discussion, as the digitization of this particular choice will perhaps change the face of “film”making itself.

To examine this assertion, we should turn to an article written over ten years ago by an editor who had been through the digital transition himself and was looking forward to a time when the other areas in film would be digitalized as well. In 1999 the famed editor and sound designer Walter Murch, in his New York Times article “A Digital Cinema of the Mind? Could be.” Spoke of film at the time as being a digital sandwich:

“Projection, at the end of the line, is one [piece of bread]; the other is the original photography that begins the whole process. The movie industry is currently a digital sandwich between slices of analog bread.”

But all of that is now coming to a screeching halt. And it all comes down to the relationship between those two pieces of bread.



Taking a look at the current relationship between projection and acquisition format, one can see that there are currently two choices on each side of the process. One can originate (acquire images) on two basic formats - film or digital, and one can project - film or digital. These days it is ever more common

for even film origination to end up being released, through a digital scan, as a digital cinema print for digital projection. This is not only because of the increase in digital effects and color correction which make the transition to digital increasingly a normal step in the post-production process, regardless of its final destination, but because the final destination itself has been a battle for control, one that has now essentially been won by the digital side. In January of this year, in his article “Resisting the Irresistible” for the magazine Sight & Sound, Nick James wrote that according to a press release from IHS Screen Digest that there are now more digital screens in the world than analogue screens. Furthermore, mainstream usage of 35mm projection will no longer be in use in the US by the end of this year, with Western Europe to be all digital one year later and by 2015 only a mere 17% screens left worldwide will still be utilizing 35mm projection. According to his article, “the projection print has had its day” [James, 2012].

Interestingly enough, in his article James quotes the same press release as attributing this amazing transition of screens from film projection to digital to an effect of a single film. “Avatar” [Cameron, 2009]. The point may be argued, however if the film did have an influence on the change, it simply managed it by accelerating how the use of digital only based design has changed the world of filmmaking and therefore the audience’s expectation of what they can see in that design. With the 3D-ness of the film, it can be difficult to appreciate that what the audience walked away from with Avatar was generally an overwhelming appreciation of the beauty of the design, not an overwhelming desire to see each film ever more in 3D. From an unexpected quarter – digital based design – came the tipping card in the digitization of film projection. This of course, has radical effects down the entire line of film production.

First of all, it is extremely bad news for an industry that the entire world of film relies on – the film lab. Film labs do not make their money off of the processing film negatives, but on the \$1000 to \$1500-a-piece release prints that previously have been needed for projection at every theater worldwide. When added together, this amount of prints often adds up to almost 50 million feet per motion picture [Murch, 1999]. However currently the labs are feeling the effects of the downturn in release print orders with intensity. In the last year, with this rush transition to digital projection, the world’s two largest labs, Technicolor and Deluxe, have started closing their labs round the world, and in the UK both have already stopped creating release prints of 16mm film in an effort to cut costs.

Additionally, all of this is terrible news for the makers of cinema film stock. In late 2011, in combination with the announcement of the cessation of the production of all new 35mm cinema film cameras, in order that manufacturers could focus on their digital offerings [Kaufman, 2011] (which makes sense as digital cameras were selling like hotcakes, whereas the older Panavision, Arri and Aaton cameras were well built enough to mainly simply require maintenance), the end

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seemed nigh. With the decline of film based release prints and the increase of digital camera acquisition the makers of film were being hit at both ends. This was finally evidenced by the January 2012 bankruptcy filing of Eastman Kodak Co. in the US. As Bloomberg put it “Kodak Files for Bankruptcy as Digital Era Spells End to Film” [McCarty & Jinks, 2012]. The filmmaking sandwich had essentially gone digital all the way through.

So is this merely a technical change, or does this physical change actually mean anything for the art of filmmaking itself?

Let’s go back to the prophetic New York Times article from Walter Murch. He himself had seen his own creative skill areas in filmmaking torn apart and rebuilt by the digital revolution that had hit them. So rather than filmmakers in film production at the time, he was in a prime position to look ahead and ask at what a full digitalization of the art might bring.

“To glimpse an answer to a question like that, we need to find some analogous development in the past, and the one that seems closest, to me, is the transformation in painting that took place in the 15th century, when the old technique of pigments on fresco was largely replaced by oil paint on canvas.”
[Murch, 1999]

Fresco was the height of the art of painting in the 15th century. Some of the greatest works of art to this day were created in this medium.

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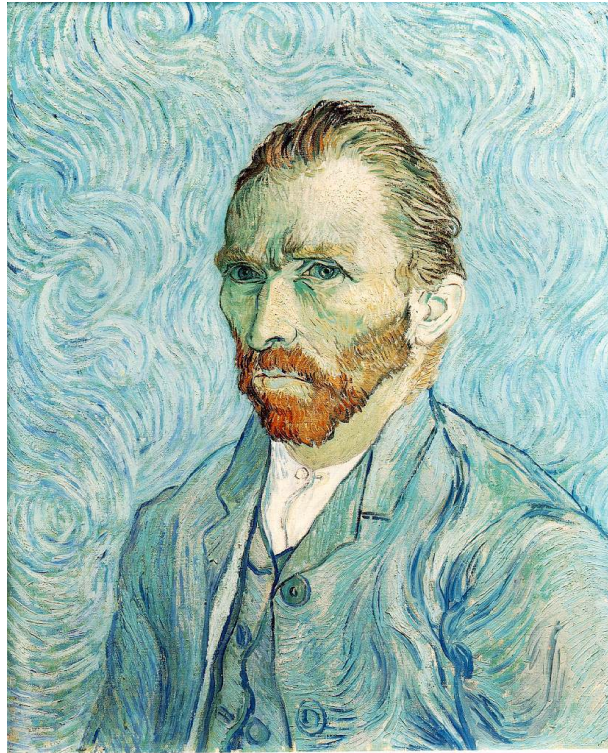


Sistine Chapel, Vatican City
Michelangelo, 1508-1512

Fresco made masterworks through the direction of a master artist over a large crew of people involved in a time-dependent art form (the pigment had to be applied before the plaster dried), where few changes, if any, could be made once the process was complete. Making fresco was complex, time consuming, and prohibitively costly in most cases. In essence, “fresco painting was an expensive effort of many people and various interlocking technologies, overseen by the artist who took responsibility for the final product.” [Murch, 1999]. Sounds familiar.

The invention of oil painting changed all of that. Suddenly there was this inexpensive, changeable and portable form of painting that could be created by a solitary individual and therefore could be a more personal and direct art. This, too, created masterworks of internal and personal exploration, never possible with the other previous tools.

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Self-Portrait, Musee d'Orsay, Paris
Van Gogh, 1889

The filmmaking Mike Figgis, in his book “Digital Filmmaking” refers to individually originated digital filmmaking as “guerrilla” filmmaking, and puts the issue this way; “the more we talk about guerrilla filmmaking and individuals, I think the healthier it is... at least it allows for the possibility of a singular creative voice, which is the source of all creativity” [Figgis, 2007]

Tremendous things have happened in individually based filmmaking even since 2007. In fact, it is something that for the most part most film education is ignoring because of the overwhelming nature of its unenlightened content. Uploads of video content on YouTube have gone from just over 5 hours per minute worldwide in early 2007 [Goss, 2010] to 60 hours per minute – or one hour of video per second in 2012. And in terms of viewing there are 4 billion views a day – the equivalent of half the world’s population watching a video per day [Warman, 2012].

Arguably, the majority of YouTube quality content is exactly what teachers in film schools are trying to break their student’s of responding to as quality image making (but to be fair, not all of it, by any means). However, the filmmaking instinct, the ability, and the outlet that digital has allowed the public cannot be denied. Has filmmaking become democratic with the advance of the digital

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originization? Or does professional filmmaking continue to live in an unreachable rarified air? Actually, even in the highly specialized world of professional filmmaking, there are advantages to digital originization that spread to the other creative areas of filmmaking as well.

Anyone who has been keeping up with David Lynch since his work on his film “Inland Empire” [Lynch, 2006], understands. Lynch is one of our great masters of images on film; however working with a small mini-dv camera changed the entire way he engages in “film”making into the future.

“I’m through with film as a medium. For me, film is dead... Once you start working in that world of DV with small, lightweight equipment and automatic focus, working with film seems so cumbersome. These 35mm film cameras are starting to look like dinosaurs to me. They’re huge; they weigh tons. And you’ve got to move them around. There are so many things that have to be done, and it’s all so slow. It kills a lot of possibilities. With DV everything is lighter; you’re more mobile. It’s far more fluid. You can think on your feet and catch things... And for actors, to get down into a character in the middle of a scene and then suddenly have to stop while we reload the film cameras after ten minutes — often, this breaks the thing. But now you’re rolling along; you’ve got 40 minutes down in there. And you can start talking to the actors, and instead of stopping it you can move in and push it... many times I am talking to the actors while we are shooting and we are able to get in deeper and deeper.” [Lynch, 2006]

Figgis, in his book on the subject, “Digital Filmmaking” not only agrees but takes it one step further; “I was reared on the idea that whatever I did creatively, I would have a direct relationship with my audience... then I started making films... and I realized that your role as a director puts you many steps removed from this possibility of an instant response”. “[Film] knocked out my ability to react quickly to a situation and to impose my creative energy directly on the actors” as well as the fact that “The sheer number of people you had to deal with – all of whom feel they are in first position for your time and attention – often meant that your creative juices were constantly being interrupted.” [Figgis, 2007]

I know that I at times have been frustrated with students who just let the camera roll through take after take simply because they could on digital (though not as frustrated as my picture editing colleagues). That I have seen it as bad practice and have thought that a good lesson of being “forced” to shoot on film with the economy that it requires would be a good lesson for them. I now realize that this is embracing of anachronistic qualities of filmmaking that are now long dead. That to not embrace the positive changes that digital brings, such as those that Lynch discusses above in terms of the effect on directing actors and Figgis discusses in terms of creative flow and connectivity to his audience, is to not take advantage of positive – and in this case – inevitable change.

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So if digital “film”making is the established way forward – and there can be no argument that this is the case - then we should examine the other two significant areas of filmmaking that we have not yet discussed – producing and writing for the screen. To make an entry into both, like we had to with the others, we must narrow down our discussion to one. And in this case the power driving the boat in terms of digitalization is producing.

Now by producing, I do not mean simply the process of acquiring funding and the actual creation and delivery of the film itself. Rather, I mean the entire process surrounding the instigation of the idea and the funding for it through the delivery of the film to the market and the utilization of that market to create funding opportunities for future films. The role of the producer is not to produce a single film, but a lifetime of films (thus, as sometimes needs to be explained to students, producers are as much a filmmaker as is a director).

A lot of attention is being given at the moment to the effects of digital social networking and crowd-sourcing funding through sites like Indie-go-go and Kickstarter. I am taking this out of the equation at the beginning of this conversation, but will come back to it again, because I don't think it is possible to run a successful crowd-sourcing campaign out of the blue, without a market base so to speak. First, a producer and or production needs “legs” of some kind. And this is where digitalization comes into play.

To look at the real and immediate effects of digitalization on producing, we must look at the effects on distribution, exhibition, marketing and monetization. There are many ways to distribute a film and its relative deliverables outside of simply ticketed four-wall screenings; including free to air television, subscription TV, rental streaming, free streaming, download, hard video, and merchandise. [Franklin, 2011]. What is interesting is how digitization is filling up more and more of these spaces as well. For the “majors” as they are often called – the established studios, distributors and distribution outlets – cross-platform marketing and distribution opportunities are a natural extension of their already successful business model and it is not too much of a stretch to see how digitalization will simply expand their reach into homes and hand-held devices. Most likely this will not alter their essential business plan, but simply up their opportunities and alter the devices through which they implement it.

However, let's take a look at distribution, exhibition, marketing and monetization – not at the pre-established film majors level - but with an eye to the completely independent producer/filmmaker. Perhaps this individual filmmaker more inclined to “paint with oils” than to work in the large production industry model? Does digitalization offer a way in and a way out with cash in hand so that the filmmaker can live to fight another day?

First off – what are the distribution models currently – and I say currently, as this

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is a constantly changing marketplace of providers attempting to capitalize on a huge market. In fact how large a market is there? How many undistributed feature films actually exist out there?

Sundance selected 110 features from 4,042 submissions for its 2012 U.S. and World Dramatic and Documentary Competition lineups. Based on the festival's history, it's fair to say that less than 40 of those films will be acquired by established, full-service film distributors. At best, this translates to a 1% success rate for aspiring filmmakers. [Beer, 2012]

So where does that leave the remaining 99% of all independent films made worldwide? What about the rest of the 35,000 feature films doing the festival circuit each year? [Reiss, 2012]

Digital distribution is attempting now to fill that gap. The first issue is the one of getting the film online and out there for an audience to purchase. There are two basic models at this point that can be used to self-distribute a feature film. The first is to use aggregators. Companies that bundle your product to digital distributors like Netflix, Amazon, Hulu, iTunes and other VOD companies. These include companies like Gravitass Ventures, Indieflix, Distribber and New Video Group, each of which have a slightly different portfolio of companies that they work with to differing success in terms of the amount of money the filmmakers receive on the backend. The other is DIY uploading for download and/or streaming through companies like VODO, Distrify, Dynamo, Renderyard, with many more being created all of the time. However, the challenge is still to monetize the fact of your film being online as for this viewers are required. Let's briefly look at two different models presented by independently hosted content. The first is a model presented by Orly Ravid from The Film Collaborative, which is perhaps the most prominent self-distribution consultant company in the world (and also a not-for-profit). According to Ravid, self-distribution is most successful in the documentary area. Ravid quotes Rob Millis of Dynamo as saying, “There are hundreds of love stories but only one or a couple docs or at most a few about any given specific topic”. She then states that in her experience a successful DIY distribution strategy for a documentary can expect to pocket \$20,000. Now if your documentary cost \$10,000 to make and you spent another \$5,000 - \$10,000 going to festivals, four-walling and marketing your film, this leaves little to no room for paying off a mortgage with your earnings from filmmaking. On the other hand, she also points to the success of the comic performer Louis C.K. when he uploaded his performance “Live at the Beacon Theater” on his own site for a PayPal price of \$5 for direct download and made over \$1MM in approximately a week's time. [Ravid, 2012].

What is making the difference here? How is it possible for one party to earn so little and another to earn so much?

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In the past, it was dependent on how many screens a distributor put your film on and how long it kept it there. Without a distributor, you had no chance at all. Now one can self distribute by digitally uploading one’s film online for viewing through multiple outlets, but the monetization is still elusive. What is necessary is something that as yet does not fully exist in the online community for feature films and that is curation. People already were tracking Louis C.K. – he had a built in audience. He was essentially curated by fame in other outlets that a new self-distributed documentary by a new producer probably does not have (unless of course it is about a subject which also has a built in audience) [Ravid, 2012].

There are existent forms of curation that currently affect the films that are chosen to be looked at online by the general public and those are the traditional ones that effect four-walled films. These include studios and distributors – who pay for marketing for the films they choose to produce and/or select (a form of curation in and of itself) and then film festivals and film critics where film curation is built into their very definition. (The problem with the latter being that if a film does not make it to an actual cinema, it will almost never be reviewed by a professional film critic). Even knowing that the film was selected by the Sundance Festival – even if it has not been selected by a distributor – makes an online visitor much more likely to stream the film than a film with no curatorial credentials.

So what are the opportunities for curation that exist on the web that filmmakers can utilize to support the monetization of the projects?

First of all, all distribution experts point to social media. Facebook and Twitter seem to be the end all and be all of marketing for truly independent and films lacking outside curation [Reiss]. The idea being that at least you can get your friends to see it, and then they might recommend it to their friends, and so on and so on. This can work to some degree (admittedly a somewhat significant degree), especially if one includes a marketing incentive with such sites as Kickstarter and IndieGoGo – which as much as a funding source act as a source of curation by the nature of people supporting projects they want to see upfront. Furthermore, supporters become invested both literally and figuratively in the success of the project and get perks such as having their name in the credits or receiving tee-shirts or signed posters for the film – whether or not it ever makes it into a theater.

Then there are the “external” forms of internet curation. First of all, there are somewhat traditional approaches such as Filmmaker Magazine’s VOD Picks, the VOD review sites Hammer to Nail and Film Buff for feature films (and Shortform, VodPod and Magnify for shorts), as well as online “festivals” such as Fandor. Then there is always the internal curation of popularity on sites such as YouTube rankings as well as the suggestion algorithms that attempt to anticipate your own taste in film as a source of curatorial authority. Finally, there are fairly recent sources of curation, namely Curzon, Sundance and Tribeca who are hand-selecting – i.e. curating - a number of films from their collections to stream at a

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fraction of the cost of seeing them in the cinema, if they ever made it to the cinema to begin with. These films also have the advantage of often being viewable on handheld devices as well.

So in a sense, what one is talking about a form of upfront built-in curation. And this is one of the effects that all of this self-distribution is having on story. Yes, in writing for screen, this trend in digital distribution is having a significant effect. I have a colleague who teaches screenwriting who consistently jokes with me that all her students need are pencils and paper, whereas because of the digital revolution mine are constantly needing new and improved cameras and equipment. This may be true in terms of the means (though in all honesty we require all of our screenwriting students to use professional screenwriting software), but in terms of the content, times are changing. This may raise a few eyebrows, but current independent distribution advice doesn't quite go so far as to say you should identify a market you can reach, figure out what that market desires, and then write for screen accordingly (though it certainly hints around the edges), but it does insist that marketing begin in the early days of development and pre-production [Reiss, 2012].

Suddenly writing the screenplay isn't enough, but blogging, tweeting and newslettering about the daily process of making the film has become just as important in terms of the film being seen by anyone at all in the end and certainly in terms of monetization. This type of writing activity may be the only way to utilize the curation sources at hand for most filmmakers. Unless you are one of the lucky 1% who gets the backing of a traditional film distribution company, then you are stuck with DIY distribution and all models currently tell us that the strongest forms of curation are ones where the audience is already built in. Again, this is why a documentary topic can have much more success with DIY, as there are assumedly a base of interested parties in the subject and why a narrative feature – even of quality – has so little chance. How do you sum up the beauty and “success” of a narrative without actual outside curation? The only hope is that you can build on audience demand, or if not general audience demand, then the demand of the audience you know you can reach (even if that is just your Facebook community of friends). To quote Jon Reiss, “a target audience is one of the niches that exist in the world that would be interested in your film (or anything that you do). A niche is a group of people focused on a particular interest. They are accessible.” [Reiss, 2012] And it is only the viewers who are accessible who will end up potentially seeing your film.

So is this good news or bad news for independent filmmakers involved in producing? What is the new business model of entertainment?

In his November 2010 interview at the Web 2.0 Summit, Ariel Emanuel, Co-CEO of William Morris Endeavor Entertainment, was asked just this question. His answer, unsurprisingly was open-ended. His assertion was that traditional media,

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be it film, music, television, news, etc. would continue pretty much per usual. However, as devices across the board became more internet enabled, more people would be creating their own content. The issue was whether or not people were going to go the traditional route and approach a funder (be it a studio or a network) for funding for that content or would self-produce and go direct to an audience. After much consideration, and he is a man who has made a tremendous amount of money being able to consider options well, he said that his job over the next four years “would be to learn how to adapt my clients voices and utilize the plethora of distribution to monetize their businesses” [Emanuel, 2010].

And what other questions about teaching film does all of this open up?

I believe it means that in his view it remains to be seen which way the wind will blow. Nonetheless he knows that with every passing year more and more content will be ending up being distributed through some form of digital media online – he just doesn’t seem entirely clear on how best to monetize it yet. And this is a man whose clients, for the most part, are going to have a curated element of fame or success built in. So if he is not entirely clear, how can an independent producer be – and following on from that – how clear can we who are teaching our producers in school be?

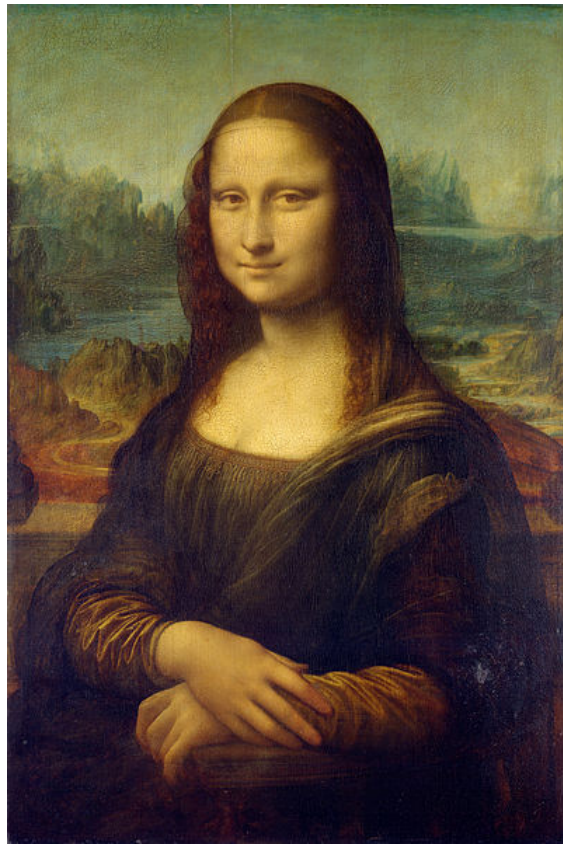
What other questions does all of this open up?

Do we still teach film in cinematography classes, or is it soon to be entirely anachronistic – “a historical curiosity” [Murch, 1999] ? Do we begin to pay attention to more “one-man-band” filmmakers who perhaps don’t want to specialize but want to make their own films with small to non-existent crews as a way of exhibiting pure self-expression – or is this a bad thing - this not collaborating, which seems such a pillar of filmmaking and film education? Do we teach writing to market even in the independent world of filmmaking which appears to have been the last bastion of auteurship for many filmmakers? Do we begin to accept fame (not infamy) on YouTube as a viable form of recognition and success of a short film, not just a festival release? So many questions are being opened up by this new dynamic world of digitalization that we are entering – questions which we must consider and seek answers to quickly, as the technology and practices continue daily to outstrip themselves once again. It is the nature of digitization itself it seems.

As Ariel Emanuel points out, the traditional forms of media are here to stay, for the foreseeable future. As a result, we can and should not stop teaching the collaborative, major production model that so many schools around the world aspire to pass on to their students (even though we may stop teaching them on film). However, at what point do we also take into account the growing wave of professionals who are wanting to try out new production models, as an existent

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form of filmmaking which should be directly taught? Perhaps the wave will come from the incoming students themselves, with their large quiver of existing skills and their software and their own cameras on which they’ve already been recording cinema quality images (with the same cameras which more and more professionals are using on their sets)? Is it fair to not respond to the individual filmmaker that is now possible with the complete digitization of the process and professional hardware and software that are at a price-point the consumer can afford? The Mona Lisa was painted by a single man between 1503-06, after all. That is two years before the Sistine Chapel.



Mona Lisa
Leonardo DaVinci, 1503-1506

It is possible that a Leonardo is already making films on their own out there – from start to finish, from pre-production through post and even online distribution? If so, perhaps we should also look to how we can support him or her in our teaching as well – develop pathways of insight and guidance into such personal filmmaking, even narrative (not just fine art filmmaking). To do that, we as teachers may need to further investigate and if we have not yet, begin to participate in this particular form of filmmaking ourselves.

Is this then the eventual future of filmmaking and therefore the teaching of filmmaking in the digital age?

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We are perhaps where painting was in 1499. So we have a few good centuries ahead of us, if we are careful. Beyond that, who knows? Let's meet again in 2099 and have another look around. [Murch, 1999]

Or to adapt a quote from my English home, “Film is dead, long live film”.

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