

The Impact of Technology on the Film Industry

Then

&

Now

Filming



Then

Aerial Shots in 1909 used an aircraft-mounted camera to capture shots from the skies. The camera was so heavy that it actually weighed more than the plane.

Audiences were able to see the edges and of **props and sets**, creating an unrealistic viewing experience.



Now

Drones use algorithms on filmmaking techniques (shot sizes, viewing angles, and screen position) to capture the best shot.

3D printing has led to props and sets that have higher quality and resolution, scalability, speedy turnaround times as well as easy customization.

3D printed objects interact with actors realistically by virtue of actually existing in physical space, unlike CGI.

Cameras



Then

With **film cameras**, conducting multiple takes of a scene was costly, as large amounts of film had to be used.

Film cameras needed to be reloaded frequently. Film is very delicate, so even the smallest scratch could ruin an entire scene.

Actors used to get feedback from their directors with **no visual aid** to see what they were doing and how they could improve.



Now

Multiple **digital cameras** can run on the same shoot, getting various angles of a scene at once. Capturing multiple takes is always possible.

Digital single-lens reflex cameras (DSLR) have taken over. They allow movies to be filmed in high-definition, which results in an incredible picture display.

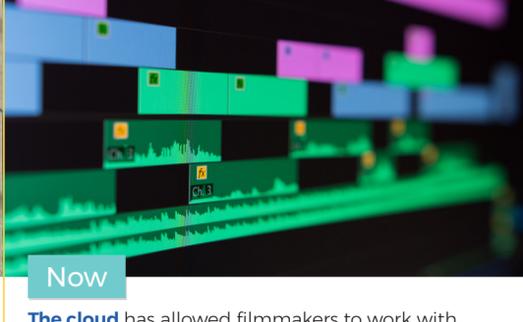
With **digital-back cameras**, actors are able to gather around the camera and watch the scene that was just filmed, noting what they can improve on.

Editing/Post-Production



Then

The initial editing of all films was done by **physically cutting and pasting** together pieces of film, using a splicer and threading the film on a machine with a viewer.



Now

The cloud has allowed filmmakers to work with production teams from different parts of the world. Files can now be shared and managed between multiple project groups making collaboration easier.

Advanced film-editing software makes it possible to create the effects of an imaginary world and fuse it seamlessly to the footages that are shot using a digital camera.

Animation

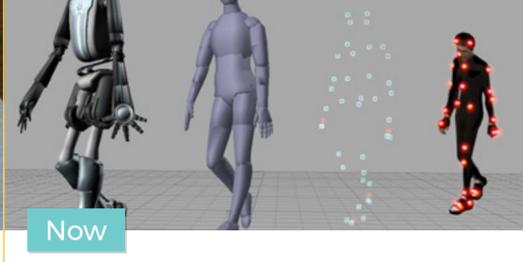


Then

Characters were drawn on **cel**s and superimposed on common background images to reduce the number of frames and production times.

Hand-drawn by artists, who relied on non-stop animation to create the realistic effects.

Computer-generated animation was used alongside the hand-drawn animation to digitally ink and color all animated cels, getting rid of the need to do it by hand.



Now

Almost everything animated is **created digitally** through computers, digital pens, tablets, and digital sculpting tools.

Thanks to faster computers and the internet, things that were only possible for major studios 20 years ago can be done by one person, or by a small crew of people.

Studios put actors in mocap suits and record their motion in a way that fits with the character they're animating, then save the motion as a skeleton animation that can be attached to a model later.

Promotion/Distribution



Then

Prior to the widespread use of the internet, film studios could only promote their upcoming film productions via **posters, magazine ads, newspaper articles, billboards**, etc.

Twenty years ago, marketing a brand-new sci-fi film could take significant market research to determine where and when to market it.



Now

Self-distribution platforms create marketing campaigns which can deliver content globally, all online.

Current **promotional material** for the film industry is curated on singular websites dedicated to nothing but advertisement. The content is more feature-rich, offering site visitors a better user experience and more site engagement.

Social media groups, categories, and hashtags allow filmmakers to specifically target a particular demographic with similar interests.

Cost



Then

The high cost to record on film, rather than digitally, prohibited the growth of independent filmmakers.

The introduction of special effects increased the budget of film production.

In the 1990s, movies were becoming exorbitantly expensive to make due to higher costs for **movie stars, agency fees, rising production costs, and advertising campaigns**.



Now

Digital cameras are less expensive than purchasing and developing film, leading to a rise in independent filmmakers.

Advanced cameras can now be used by just one person, cutting down on the number of crewmembers needed on a shoot.

Crowdfunding sites allow audiences to donate to projects or campaigns that interest them.

Consumption



Then

"Nickelodeons", or 5-cent movie theaters, began to offer an easy and inexpensive way for the public to watch movies, increasing the appeal of film and generating more money for filmmakers.

The 1970s saw the advent of films on VHS video players and laser disc players, greatly increasing profits and revenue for studios, but caused a decrease in theater attendance.



Now

By 2018, revenue from electronic home video (which includes streaming services and on-demand programming) is projected to **surpass that of U.S. cinema**.

While watching films, **second-screen apps** allow viewers to get inside information and behind-the-scenes looks on their phone.

In-theatre experiences have been enhanced with advanced speakers that make the audience feel like they are in the movie.

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