



## SRINIVASAN COLLEGE OF ARTS AND SCIENCE

#### (Affiliated to Bharathidasan University, Trichy)

#### PERAMBALUR-621212

#### DEPARTMENT OF JOURNALISM AND MASS COMMUNICATION

Course: JMC Year:2 Semester: IV

Course material on : BASICS OF VIDEOGRAPHY

Course code : ALLIED COURSE IV(AC)

Sub Code (BDU given): 16AACJM4

Prepared by : N.BHARATHI M.A., M.Phil, B.Ed.,

Month & Year: March 2020

# **Allied Course IV - Basics of Videography**

#### **UNIT I**

Basics and Importance of Videography. History of Videography, Purpose and advantages of

Videography. Limitations and applications of Videos

#### **UNIT II**

Lens and image formation – focal length, F-number, T-number, types of lens, image formation,

magnification, filters, ND filter, depth of focus. Video tapes & formats

#### **UNIT III**

Types of shots, camera angles. Camera movements-panning, tilting, tracking, craning, and zooming

#### **UNIT IV**

Basics of lighting. Key fill, back light and background light, use of reflectors, Lighting and exposure.

Lighting technology, direct light, diffused light, illumination, units of light

#### **UNIT V**

High Definition and 24P cinematography. Picture quality. Display quality. Frame rates and scanning.

**Professional Formats. The future of Videography** 

# **Basics of Videography**

#### Unit-1

## **Basics and Importance of videography**

**Videography** refers to the process of capturing moving images on electronic media (e.g., videotape, direct to disk recording, or solid state storage) and even streaming media. The term includes methods of video production and post-production. It is considered the video equivalent of cinematography (moving images recorded on film stock).

The advent of digital video recording in the late 20th century blurred the distinction between videography and cinematography, as in both methods the intermittent mechanism became the same. Nowadays, any video work outside commercial motion picture production could be called *videography*. A **videographer** is a person who works in the field of videography and/or <u>video production</u>. News broadcasting relies heavily on live television where videographers engage in electronic news gathering (ENG) of local news stories.

## <u>Uses</u>

The arrival of computers and the <u>Internet</u> in the 1980s created global environment where videography covered many more fields than just shooting video with a camera, including digital animation (such as <u>Flash</u>), <u>gaming</u>, <u>web streaming</u>, <u>video blogging</u>, still <u>slideshows</u>, remote sensing, spatial imaging, medical imaging, <u>security camera</u> imaging, and in general the production of most <u>bitmap</u> and <u>vector</u> based assets.

As the field progresses, videographers may produce their assets entirely on a computer without ever involving an imaging device, using software-driven solutions. Moreover, the very concept of sociability and privacy are being reformed by the proliferation of cell-phone, surveillance video, or <u>Action-cameras</u>, which are spreading at an exceptional rate globally.

A <u>videographer</u> may be the actual <u>camera operator</u> or they may be the person in charge of the visual design of a production (the latter being the equivalent of a <u>cinematographer</u>).

# Videography in social science

In social sciences, videography also refers to a specific research method of video analysis, that combines ethnography with the recording of sequences of interaction that are analysed in details with methods developed on the basis of conversation analysis. One of the best known application is in workplace studies.

# **Videographers**

On a set, in a <u>television studio</u>, the videographer is usually a <u>camera</u> <u>operator</u> of a <u>professional video camera</u>, sound, and lighting. As part of a typical <u>electronic field production</u> (EFP) <u>television crew</u>, videographers usually work with a <u>television producer</u>.

However, for smaller productions (e.g. corporate and <u>event</u> <u>videography</u>), a videographer often works alone with a <u>single-camera setup</u> or in the case of a <u>multiple-camera setup</u>, as part of a larger <u>television crew</u> with <u>lighting</u> <u>technician</u>, <u>grips</u> and <u>sound operators</u>.

Typically, videographers are distinguished from <u>cinematographers</u> in that they use digital hard-drive, flash cards or tape drive video cameras vs. 70mm <u>IMAX</u>, 35mm, 16mm or Super 8mm mechanical film cameras. Videographers manage smaller, event scale productions (commercials, documentaries, legal depositions, live events, short films, training videos, <u>weddings</u>), differing from individualized large production team members. The advent of high definition digital video cameras, however, has blurred this distinction.

Videographers maintain and operate a variety of video camera equipment, sound recording devices, edit footage, and stay up to date with technological advances. With modern video camcorders, professional studio quality videos can be produced at low cost rivaling large studios.

Many major studios have stopped using film as a medium due to <u>linear-editing devices</u> no longer being made and the availability for amateurs to produce acceptable videos using DSLRs (<u>Digital single-lens reflex camera</u>). Videographers use <u>non-linear editing</u> software on home computers.

## **HISTORY OF VIDEOGRAPHY:**

The History Of VideographyThe History Of VideographyBy Cailey Roberson 1814Joseph Nicphore Nipce otained the first ever photographic image with his Camera Obscura.

The Camera ObscuraThe First Photograph1908 .In 1908, Emile Cohl released Fantasmagorie, the first full-length animated film.1920sAmerican engineer Philo Taylor Farnsworth devised the television camera, an image dissector, which converted the image captured into an electric signal. 1923Walt and Roy Disney founded Disney Brothers Cartoon Studio.

**RoyWalt1927** Warner Brothers release The Jazz Singer, the first full-length talkie. 1928Walt Disney creates the first cartoon with sound, **"Steam Boat Willy"**.1950sIn the early days, film was the only medium available for recording television.

Thoughts turned to magnetic tape, which was already being used for sound, but the greater quantity of information carried by the television signal demanded new studies. During the 1950s, some American companies began looking into the problem. Charles P.

Ginsburg Charles Ginsburg led the research team at Ampex Corporation in developing the first videotape recorder (VTR). Known as The Father of the Video Tape Recorder.1951In 1951 the first video tape recorder captured live images from television cameras by converting the information into electrical impulses and saving the information onto magnetic tape.1956Ampex sold the first VTR for \$50,000.1971The first VCassetteR or VCR were sold by Sony in 1971.1976Video tape in a large cassette format introduced by both JVC and Panasonic around 1976.

This has been the most popular format for home use and video store rentals, however, it will be replaced by mini DV tapes and DVDs. VHS stands for Video Home System. 1981The still video or digital camera was first demonstrated in 1981. It used a fast-rotating magnetic disc, two inches in diameter, recording on it up to 50 images formed in a solid-state device in the camera.

\*\*\*\*\*\*\*

#### **UNIT-II**

#### LENS AND IMAGE FORMATION

There are two alternative methods of locating the image formed by a thin lens. Just as for spherical mirrors, the first method is *graphical*, and the second *analytical*.

The graphical method of locating the image formed by a thin lens involves drawing light-rays emanating from key points on the object, and finding where these rays are brought to a focus by the lens. This task can be accomplished using a small number of simple rules.

Consider a converging lens. It is helpful to define two focal points for such a lens. The first, the so-called image focus, denoted, is defined as the point behind the lens to which all incident light-rays parallel to the optic axis converge after passing through the lens. This is the same as the focal point F defined previously.

The second, the so-called *object focus*, denoted, is defined as the position in front of the lens for which rays emitted from a point source of light placed at that position would be refracted parallel to the optic axis after passing through the lens. It is easily demonstrated that the object focus is as far in front of the optic centre  $\mathcal{O}$  of the lens as the image focus is behind  $\mathcal{O}$ .

The distance from the optic centre to either focus is, of course, equal to the focal length of the lens. The image produced by a converging lens can be located using just *three* simple rules:

- 1. An incident ray which is parallel to the optic axis is refracted through the image focus of the lens.
- 2. An incident ray which passes through the object focus of the lens is refracted parallel to the optic axis.
- 3. An incident ray which passes through the optic centre  $\mathcal{O}$  of the lens is not refracted at all.

## VIDEO TAPES & FORMATS

As technology progresses, we're constantly switching out the old for the new. Well, as everyone already knows, this also applies to your family media such as video and audio tapes. There's been so many different tape formats and shifts of technology over the years, it's hard for anyone to keep track of the model names or equipment needed to play their old video tapes.

Hopefully this list of video tape formats will help you figure out exactly what kind of tape you have, so you can give yourself a better idea of how to proceed. The chart below lists the various tape formats of <u>audio we can transfer</u> to <u>CD</u> or hard drive. While not as complicated as the multiple types of video tapes, it can still often be confusing as to what exactly you're looking at.



Microcassette

-Introduced by Olympus in 1969 -Smaller than a standard audio cassette -Typically used for voice recordings and home answering machines



## Audio Cassette

-Format developed by Phillips and released in 1963-1964 -Most popular audio recording medium for consumers until the development of CDs



# Reel to Reel

-Developed in the 1940s -Can be recorded and played at various speeds.



LP/Vinyl Record -One of the earlier recording mediums as it was developed in the late 1800s -Could be played at various speeds, still popular to this day.



**MiniDVD** 

-DVD disc having 8 cm (3 in.) in diameter. -Recordable 8 cm discs are commonly used in DVD-based camcorders. Depending on variant, these discs can offer up to 5.2 GB of storage space.



MicroMV

-MicroMVwas a proprietary videotape format introduced in 2001 by Sony. -Physically the smallest of all video tape formats, 70% smaller than a MiniDV cassette



3/4" U-Matic -Developed by Sony, released in 1971 as a professional video tape format. -It was among the first video formats to contain the videotape inside a cassette, as opposed to the various open-reel formats of the time.

\*\*\*\*\*\*\*\*\*\*

#### **UNIT-III**

## CAMERA (Types of shots, camera angles)

The variance of camera angles in filmmaking are used to help enhance the narrative, the theme, and the overall mood of the film.

Cinematographers usually make a conscious choice as to how each scene is shot.

By doing so, they strive to convey the overall message of their film through each individual frame making how the camera is angled in each scene, of utmost importance. In filmmaking there are various types of camera angles that can assist you in pushing forth your intended narrative goal for your film, everything from basic to advanced camera shots

# What Are the Basic Types of Camera Shots?

Basic camera shots are those that refer to the indication of subject size within the frame. There are three different types of basic camera shots which include: the close-up, medium shot, and the long shot.

## 1. Close-up

A close-up shot is a shot taken of a person or object at a close range, in order to capture the minute details of the subject. This shot is tightly framed and takes up most of the screen, as it is usually used to frame a character's face in order for the audience to see what type of emotion is being conveyed. In addition to serving as a tool used to evoke a character's emotional state of mind, the close up shot is also used to reveal details or information about objects or the setting the film is set in.

For example, close-up shots are often used to indicate to the audience that they should pay attention to a certain motif or symbol that is being carried throughout the film.

#### 2. Medium Shot

A medium shot, or waist shot, indicates that it was captured at a medium distance from the subject. It is often used for back and forth dialogue within a scene as it allows the viewer to have a solid view of each character within a film.

This shot is known as the 'sweet spot' shot, as it allows for both the details of your subject to be seen in addition to the surrounding setting the scene is taking place in. As a result, using a medium shot can help the viewer depict the body language of the characters in the film and how they are interacting with the environment around them.

## 3. Long Shot

The long shot, also known as the wide shot, is often times used as an establishing shot in a film, as it normally sets the scene and the character's place within it. This type of camera shot, shows the full length of the subject while also including a large amount of the surrounding area of the film setting.

Some of the most recognizable and iconic scenes in movies, are those that were shot as a long shot. Furthermore, when filming a movie solely from a distance that includes only long shots, it can give a sense of separation between the film itself and the audience. For example the 2019 Oscar winning film, Roma, was solely filmed in a series of long shots.

This film technique causes the audience to feel isolated and like they are only allowed to be on-lookers into the story being presented to them, rather than being immersed in the narrative being told.

## **Extreme Close-Up**

An extreme close-up shot, is when the surface area of the frame is filled by a subject's face. In other words, the subject is tightly framed, or shown in a relatively large scale, causing their face to be cropped within the frame. This type of shot is often referred to a choker as well, which is when a shot is framed just above the eyes and right below the mouth.

Extreme close-ups are a powerful way to convey the emotion that your subject is feeling, without the need of the character saying much. Much like the use of a regular close-up shot, an extreme close-up can be used to guide the viewer's eyeline and show them an object or motif that is pivotal to the narrative of the film.

## **Extreme Long Shot**

Taking the long shot one step further, the extreme long shot, or extreme wide shot, is when the view is so far from the subject that he/ she isn't necessarily the focus anymore, but rather the surrounding area is. Also used as an establishing shot within a film, the extreme long shot, is designed to show the audience where the action is taking place.

Furthermore, an extreme long shot can also be used to demonstrate the scale of what is going on in a scene. This type of shot is often used in war-type films, as they allow for a lot of the setting to be seen at once.

Although close-up, medium, and long shots are the three pillars of basic camera shots, there are multiple variations of each shot that you can use in order to blend the effects of the different shots. For example, a medium close-up combines the effects and distance of framing of both a close-up and medium shot-- the same would go with a medium long shot, and so on.

# What Are the Different Angle Shots in Film?

Advanced camera shots, are those that indicate camera angle and placement, and are often used to affect the mood or narrative of the film, rather than indicate size and spatial awareness.

# 1. High-Angle

A high-angle shot is a cinematography technique where the camera points down on the subject from above. This type of shot is used to make the subject or object below seem vulnerable, powerless, or weak. This camera angle is most commonly used in horror movies to indicate a sense of entitlement the camera has over the subject below. Other messages a high angle can convey include: danger, depression, and shock.

When using a high angle shot this causes the audience to have a subjective camera view by asserting themselves to have the viewpoint of the person in 'power'. Additionally, a high camera angle shot can also provide an overview of the scene itself, which allows the viewer to get a better understanding of where the setting of the film is taking place-- possibly giving them a new perspective of how they view it.

## 2. Low-Angle

A low-angle shot is when the camera is positioned low on the vertical axis, below the level of the eyeline, and looks up at an object or subject above. This camera angle evokes a psychological effect by making the subject above, which the camera is angled at, look strong and powerful.

In addition, the use of a low angle shot can make the 'hero' of your film seem vulnerable and cause the viewer to have a relatable feeling to a character that usually seems unstoppable. Another common way this angle is used, is to increase the perceived height of an object—as when something is filmed from a low angle is causes it to appear quite larger than it actually is.

#### 3. Over the Shoulder

The over the shoulder shot, is most commonly used in film when two or more characters are talking to each other in conversation. This type of shot is used to establish eyeline of where each character in the scene is looking, and is most commonly framed through a medium or close-up shot.

This type of shot can also be used to indicate to the viewer that a specific character in the film sees something that the other characters might not yet see. For example by playing with the depth of field in your scene, you can draw the attention of your viewer to look at something in the distance that a character is witnessing first hand. In this case, a great depth of field would be used by causing the foreground to be blurry, and the background to be in focus.

## 4. Bird's Eye

The bird's eye view shot, or an aerial view shot, is when the camera is located up above, overhead, capturing the action going on below. In today's day and age, these types of shots are most commonly captured with a drone in order to be able to get the full view of what is happening down below.

In various different types of cinematic works, bird's eye shots are used as establishing shots to give context of where the setting of the film is, in addition to being used as transition shots to show what exactly is going on in a setting from an aerial view. These types of shots are commonly used in films where the location each scene plays a pivotal role in the narrative. However, despite being able to capture this type of shot on a drone, it is also possible to capture a bird's eye shot from the top of a structure or building, such as a bridge or skyscraper.

## 5. Dutch Angle/Tilt

The Dutch angle/tilt is more of a stylistic approach to cinematography. In order to execute this, you must tilt your camera to one side, which results in a frame that is not level. This type of camera angle is used mostly to create a dramatic effect within a film and can evoke a series of different emotions.

The Dutch angle can heighten psychological distress and tension, which in turn, creates a cinematic environment that creates suspense and a sense of thrill. Additionally, filming a scene in this angle can make your audience feel disoriented, uneasy, and sometimes even a sense of drunkenness.

These advanced camera shots, or angles, are used in film to convey an effect or emotion rather than exemplify a sense of space. Before filming, cinematographers will write out their shot list in order to plan how each scene of their film should be shot. When directing your next cinematic masterpiece, be sure to sprinkle in a few of these camera angles in order to help convey the message of your narrative.

#### How to Elevate The Look of Your Film

Besides the fact of maximizing these different camera angles to enhance the mood of your next film, you also want to be sure you are able to capture your footage in the highest-quality possible. In order to do so, a variable ND filter can be used to take your film to the next level and make it look extremely professional and cinematic.

A VND filter is the best way to optimize your workflow when out on location filming, as it allows you to control your shutter speed in ever-changing lighting conditions. Also, instead of bringing multiple ND filters with you on your video shoots, a variable ND filter allows you to adjust on the fly by combining multiple stops into one filter element, making it easy for you to adapt to various environments.

Variable ND filters can also help you adjust your depth of field when filming, which is helpful when trying to isolate a certain object of subject within a scene. Here at PolarPro we collaborated with one of the biggest content creators in the industry, <a href="McKinnon">Peter</a> McKinnon, to engineer a customized Variable ND filter that keeps the professional run and gun cinematographer in mind.

The <u>Peter McKinnon Variable ND</u> filter was created with pristine quality construction as our main priority, and is made of two handcrafted fused glass elements, which work in unison to allow the proper amount of light exposure into your lens.

Featured in our <u>QuartzLine filters</u> as well, our quartz glass technology allows the VND to have increased durability and withstand extreme conditions. Additionally, the controlled stop range eliminates the worry of cross-polarization and vignetting so your cinematic content is produced the way you intend it to be.

## **How To Capture Stunning Aerial Footage**

Whether you are trying to capture epic footage on the ground or in the air, it is always imperative to maximize the use of your videography devices in order to film high quality content. The best way to ensure this, is by adding a ND filter to your drone as filters can be used to cut through UV haze when it is high up.

This haze is prevalent at higher altitudes and causes glare that is naked to the human eye. As a result, a ND filter can help reduce this glare and smooth out your image to make it look crystal clear. Here at PolarPro, we have hand-crafted custom ND filters for any of your DJI drone devices—everything from Mavic 2 to Phantom 4.

With the help of a ND filter on your next aerial shoot, it will prove to be a welcome addition to your drone and a necessary part of an equipment in your gear bag.

\*\*\*\*\*\*\*\*\*

#### **UNIT-IV**

## **BASICS OF LIGHTING**

One room can serve multiple purposes. It can be a place where you can relax, work on the computer, do arts and crafts, cook, share a meal with friends, and much more... This is why lighting features need to correspond to the setting or application of the room.

"The best advice I can offer is the following: no matter what you do, or what you hope to accomplish, always install three types of lighting in a room," says Patricia Rizzo, of the Lighting Research Center. People often expect a single source of light to meet all their needs. Yet, each of the three types of lighting has a particular function to fulfill specific needs, which are:

- Ambient lighting
- Task lighting
- Accent lighting

# **Ambient Indoor Lighting**

General or ambient lighting is intended to light up a room in its entirety. It provides a uniform level of illumination throughout the space independently of other lighting sources.

Moreover, its purpose is to ensure safe and easy traffic, as well as to create an overview of the room. The ambient light 'bounces' off the walls to illuminate as much space as possible.

# Types of fixtures that can provide general ambient indoor lighting:

Chandelier

Ceiling mounted fixture

Wall-mounted fixture

Traditional recessed fixtures and / or LED downlights

Track light

Floor lamp

Table lamp

## **Ambient Outdoor Lighting**

Outdoor lighting is usually installed in order to ensure visibility and increase security around a building. It is also recommended to light up the exterior of the building, entrances and stairs to reduce and perhaps eliminate the risk of injury that can occur when entering and leaving the building.

# Types of fixtures that provide ambient outdoor lighting:

Spotlight

Hanging fixture

Garage and canopy lighting

Post lantern

Wall lighting

Recessed fixture used in overhanging structures

## **Task Lighting**

Task lighting illuminates the tasks a person carries out in a given space such as reading, cooking, computer work. A brighter light is required in a smaller focal point of the room for these sorts of tasks.

For a more pleasant illumination, it is often best to avoid harsh lights or lighting that casts troublesome shadows. It is also practical to install a single switch for focal lighting, independent from the room's overall lighting switch.

# Types of Fixtures that Provide Task Lighting:

Directional gimbal recessed fixture or downlight

Pendant lighting

Slim line bar and undercabinet

Tape and extrusion

Portable or desk lamp

## **Accent Lighting**

Accent lighting is used mainly to focus on a specific point of interest or to achieve a desired effect. This type of lighting gives the impression of a larger room. It is more frequently used to highlight an architectural feature, a plant (in outdoor layout), a sculpture, or a collection of objects.

As a general rule, effective accent lighting requires the installation of three times more light on the focal point than ambient lighting generally provides.

# **Types of Fixtures that Provide Accent Lighting:**

Track light

Slim line bar and undercabinet

Tape and extrusion

Directional recessed fixture or downlight

Wall-mounted fixtures

# 1. Flat light

When you have your light source facing directly at the front of your subject, this is flat lighting. Flat lighting on a face will mean that your subject is well lit and you are unable to see any shadows along their face.

This is not a heavily desired look in portraits as you need shadows to draw your subject to life. However, there are circumstances where it's beneficial. Since shadows can draw out imperfections and textures, flat lighting is beneficial when photographing babies in their acne skin weeks, teens with heavy blemishes, and elderly people feeling insecure about their wrinkles. If you have a photo that is oozing character and personality, you can also get away with flat light on your subject.

# 2. Broad light

With broad light (a type of side lighting), the face of your subject is at an angle and the most well-lit side of the face is closest to the camera and the shadow falls on the back side of the face. This type of light can make a face look fuller so it's ideal for those with very narrow faces.

## 3. Short light

Another type of side lighting, short light is the opposite of broad light in that the face is at an angle and the shadow falls on the side of the face closest to the camera. This type of light works well to thin a face and is flattering on most people.

One thing to keep in mind is that shadows draw out textures and imperfections. While broad light is a wonderful way to emphasize freckles, it will also draw out imperfections like acne and scars.

Knowing how your subject feels about those imperfections is important so you know if you should hide them with another type of lighting or if they're okay with you showcasing them with short light.

# 4. Split light

Split lighting is another type of side lighting but it is defined as light that hits your subject from the side at a 90 degree angle.

You can easily recognize split lighting in an image by half of the subject being lit and the other half in the shadows. With a face specifically, you'll see the shadow line straight down the middle of the forehead, nose, and chin.

Split lighting tends to make your subject look tough and masculine so you want to really consider your subject when choosing this type of lighting.

# 5. Backlight

Backlight is just that, light that comes from behind your subject. This is commonly seen in photos from the beloved golden hour, when the sun is low in the horizon and starting to set, but can be done at all hours of the day.

Sources of backlight can include a window behind your subject in the middle of the day to a flash placed behind with a colorful gel for something fun.

As beautiful as backlight is, it comes with its own challenges which can include a look of haziness and lack of clarity in your subject. Because of this, I like to do a few things...

\*\*\*\*\*\*\*\*\*\*

#### UNIT -V

#### CINEMATOGRAPHY & FUTURE OF VIDEOGRAPHY

**Digital cinematography** is the process of capturing (recording) a motion picture using digital image sensors rather than through film stock. As digital technology has improved in recent years, this practice has become dominant. Since the mid-2010s, most movies across the world are captured as well as distributed digitally.

Many vendors have brought products to market, including traditional film camera vendors like Arri and Panavision, as well as new vendors like RED, Blackmagic, Silicon Imaging, Vision Research and companies which have traditionally focused on consumer and broadcast video equipment, like Sony, GoPro, and Panasonic.

As of 2017, professional 4K digital film cameras were approximately equal to 35mm film in their resolution and dynamic range capacity, however, digital film still has a different look to analog film. Some filmmakers still prefer to use analogue picture formats to achieve the desired results.

# **Technology**

Digital cinematography captures motion pictures digitally in a process analogous to digital photography. While there is no clear technical distinction that separates the images captured in digital cinematography from video, the term "digital cinematography" is usually applied only in cases where digital acquisition is substituted for film acquisition, such as when shooting a feature film. The term is seldom applied when digital acquisition is substituted for video acquisition, as with live broadcast television programs.

# Recording

Professional cameras include the Sony CineAlta(F) Series, Blackmagic Cinema Camera, RED ONE, Arriflex D-20, D-21 and Alexa, Panavisions Genesis, Silicon Imaging SI-2K, Thomson Viper, Vision Research Phantom, IMAX 3D camera based on two Vision Research Phantom cores, Weisscam HS-1 and HS-2, GS Vitec noX, and the Fusion Camera System. Independent micro-budget filmmakers have also pressed low-cost consumer and prosumer cameras into service for digital filmmaking.

Flagship smartphones like the Apple iPhone have been used to shoot movies like Unsane (shot on the iPhone 7 Plus) and Tangerine (shot on three iPhone 5S phones) and in January 2018, Unsane's director and Oscar winner Steven Soderbergh expressed an interest in filming other productions solely with iPhones going forward.

Digital cinematography cameras capture digital images using image sensors, either charge-coupled device (CCD) sensors or CMOS active-pixel sensors, usually in one of two arrangements.

Single chip cameras designed specifically for the digital cinematography market often use a single sensor (much like digital photo cameras), with dimensions similar in size to a 16 or 35 mm film frame or even (as with the Vision 65) a 65 mm film frame.

#### **FUTURE OF VIDEOGRAPHY**

In today's ever-changing world of technology, video is coming in fast and hard to dominate both the entertainment and marketing space. With multiple devices to choose from — from mobile to tablet, desktop to streaming video on our televisions, more and more people are not only using video to make purchasing decisions, but also changing the way they receive their entertainment. The days of "Prime Time" are over.

As developments in videography technology increase, businesses across the globe will have more access to the leading technology. More companies will be able to purchase things like a 4K graphics card, or an HD video recorder, or a drone, because they are relatively inexpensive and they just might launch a business into success.

Media business owner Dave Ridgway shares, "The days of physical media are pretty much over." The future of video marketing lies in creating high quality media to share instantly through the Internet. In fact, 87% of online marketers now use video content in their marketing strategies. 4K resolution, hyperlapse, aerial footage, and other advanced video technologies make the video market more competitive and businesses are starting to catch on.

Since video accounts for an entire third of all online activity, brands are justified in investing in videos. Videos can explode a brand's online presence, and when a company opts for the highest definition video format or the highest resolution video camera, it is making its content more appealing to viewers. Since more businesses are taking part in the online video market, video technology is the deciding factor that will set one's business apart from the rest.

# What do you predict for the future of social media marketing?

Social media marketing as a whole will be more centered around videos. If you do not believe the hype about videos, just look at the numbers. Social video produces 1200% more shares than text and images combined. Facebook, Twitter, Instagram, and Google Plus have all made it easier to post, share, and view videos on your profile. YouTube, Snapchat, and Periscope are some of the leading social networks of today, and they all take root in social video.

Instead of putting time into thinking of a witty, 140-character-or-less tweet, brands will focus on creating a witty, 140-second-or-less video. The thing about video is that it offers a sort of virtual reality for the viewer. Viewers can hear, see, and feel what is expressed in a video. Images and text are static, while videos breathe life into the viewer's phone or computer screen.

Along with videos, social media marketing will be more directed toward mobile. Probably the number one goal of social networks is to make connecting with others instant and accessible, and mobile access only amplifies this. The tipping point from desktop to mobile has finally been reached, as Google announced fairly recently that mobile searches surpassed desktop searches for the first time in history.

\*\*\*\*\*\*\*\*\*