

Introduction

The documentary genre has radically evolved in recent years and so it's not a surprise that there may be some confusion about "what exactly is a documentary!".

A documentary is a broad term to describe a non-fiction movie that in some way "documents" or captures reality. Documentaries are often used to reveal an unusual, interesting or unknown angle. Documentary filmmakers are often motivated to make their films because they feel a particular story or viewpoint is not being (adequately) covered by mainstream media.

*"Documentaries bring viewers into new worlds and experiences through the presentation of factual information about **real people, places, and events**, generally -- but not always -- portrayed through the use of actual images and artifacts. But factuality alone does not define documentary films; it's what the filmmaker does with those factual elements, weaving them into an overall narrative that strives to be as **compelling** as it is **truthful** and is often greater than the sum of its parts."*

--Sheila Curran Bernard, Author of **Documentary Storytelling**

Documentaries can be funny, poignant, disturbing, ironic, absurd, inspirational, amusing, shocking or any combination. It is a genre of movie making that uses video & film scenes, photographs and/or sound of real people and real events which when edited together creates a particular story, viewpoint, message or experience.

Traditionally, documentaries are 30-minutes to 2 hours in length (to fit within a television schedule or for theatrical release). However, documentaries are often shorter in length, especially in recent years with the advent of the Internet and web video. Learn about **mini-documentaries**.

Observational and Verite Documentary (Documentary Modes)

Webster defines documentary as "a movie or television program that tells the facts about actual people and events." The conventional thinking about documentaries is that they document reality, represent the objective truth and do not include fictional elements. Certainly, these are some of the qualities we expect from journalistically driven current affairs docs made for TV where the editorial impetus is to strive for factual and balanced presentations.

But as any serious film buff knows, the documentary form has been shifting its shape ever since the earliest days of cinema. The Scottish documentary trailblazer John Grierson who first coined the term documentary in 1926 defined it as "A creative treatment of actuality." Commenting on

Robert Flaherty's early anthropological films (*Nanook of the North* 1922; *Moana* 1926), which were more docufiction than documentation, Grierson anticipated that documentary is as much about making art as it is about presenting facts.

If you're an emerging doc maker, you should be watching as many documentaries as you can. Study documentaries of all styles and genres to inspire your own work as non-fiction storyteller. And while you're at it, read up on what film scholars and movie critics have to say about how these films are constructed.

Bill Nichols has produced an impressive body of scholarly works on documentary and its variety of forms and styles. In his 2010 classic text, "Introduction to Documentary," Nichols distilled the many sub-genres of documentary down to six styles or modes.

The Expository Mode

The expository mode is the most familiar. Expository docs are heavily researched and are sometimes referred to as essay films because they aim to educate and explain things — events, issues, ways of life, worlds and exotic settings we know little about. Typical production elements include interviews, illustrative visuals, some actuality, perhaps some graphics and photos and a 'voice of God' narration track. Scripted narration connects the story elements and often unpacks a thesis or an argument.

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The "Why We Fight" (1942-43) series of propaganda films commissioned by the government to explain U.S. involvement in World War II were made in classic expository style. Other examples include current affairs docs made for "60 Minutes," History Channel programs, and nature films such as "The Blue Planet." The sweeping historical documentaries of Ken Burns ("Mark Twain," 2001; "The Dust Bowl," 2012) fall into the expository category.

The Observational Mode

Observational documentary is probably the most analyzed mode of them all. The form is also referred to as *cinéma vérité*, direct cinema or fly-on-the-wall documentary. Observational docs strive for cinematic realism. The gritty realism produced by actuality filmmakers of the 1960s and 70s was achieved through technological advances made ten years earlier: faster lenses for shooting in low light conditions and smaller cameras that could now be handheld and were no longer tethered to a sound recorder with an audio sync cable. An unobtrusive crew of two could shoot almost anywhere with available light and follow actuality as it unfolded. Up until then, bulky film production gear required finicky technical setups and careful staging of

the action. Boston director Frederick Wiseman, considered to be the master of observational cinema, is known for his groundbreaking studies of institutions and big social issues (“High School,” 1968; “Public Housing,” 1997). Wiseman resists categorization of his work: “Cinéma vérité is just a pompous French word.”

In Wiseman’s films, carefully edited and arranged actuality scenes speak for themselves. There is no intervention by the filmmaker, no interview questions, no commentary to camera, no narration. On location, Wiseman records the sound and handles the microphone. Freed from looking through the viewfinder, the director is able to pay better attention to what’s going on around him and anticipate the action. Wiseman communicates with his cameraperson through pre-arranged hand signals and directs by pointing his microphone at what he wants filmed.

The Participatory Mode

In “Introduction to Documentary,” Bill Nichols describes participatory documentary as “[when] the encounter between filmmaker and subject is recorded and the filmmaker actively engages with the situation they are documenting.”

The participatory mode aims for immediacy and often presents the filmmaker’s point of view. Michael Moore’s documentaries are primarily vehicles for his social commentary. A dynamic shooting style that captures ‘man in the street’ interviews as well as ambush grillings of the powerful, staged sequences featuring the director and mostly one-sided narration are trademarks of Moore’s point of view docs, including “Sicko” – slamming the health care system — and “Bowling for Columbine” — lobbying for gun control.

The investigative work of filmmaker Nick Bloomfield also falls into the participatory mode. mixer and boom mic himself.

The Reflexive Mode

Documentaries made in reflexive mode provoke audiences to “question the authenticity of documentary in general,” writes Bill Nichols. Reflexive docs challenge assumptions and expectations about the form itself. Dziga Vertov, the Russian film pioneer makes it clear in “The Man With A Movie Camera” that what the audience is watching is not reality but rather a construction of reality. The film is silent and contains no interstitial titles. Ostensibly a ‘city documentary’ that chronicles a day in the life of a metropolis, the 1929 avant-garde classic includes scenes of the film’s cameraman and how he went about getting his shots. Also intercut with scenes of factories, trains and crowded streets are short sequences of a diligent film editor working with individual frames from the film. By clever juxtaposition of scenes and images, Vertov gives us a sense that the film we are watching is being assembled right before our eyes.

The Poetic Mode

Webster defines poetry as “literary work in which special intensity is given to the expression of feelings and ideas by the use of distinctive style and rhythm.”

You can apply this definition almost perfectly to many documentaries created in the poetic mode — the aim is to create an impression or a mood rather than argue a point. The poetic form also referred to as abstract or avant-garde can be traced back to the popular City Symphony film movement of the 1920s out of which came such classics as Walter Ruttmann’s “Berlin: Symphony of a Metropolis” (1927). Filmmakers operating in the poetic mode typically emphasize cinematic values over content to create visual poetry. Shot design, composition and rhythm achieved in editing are hallmarks of the genre. The narrative, if there is one, is expressed visually rather than rhetorically. Dutch filmmaker Joris Iven’s City Symphony classic “Rain” (1929) is a shining example of the poetic style that shows how a rainstorm transforms the Dutch metropolis Amsterdam.

The Performative Mode

The performative mode of documentary is the direct opposite of the observational where unobtrusive observation of the subject is the director's aim. Performative documentary emphasizes the filmmaker's own involvement with the subject. The filmmaker shows a larger political or historical reality through the window of her own experience. Rather than rely on the expository approach, the rhetoric of persuasion, the performative filmmaker becomes a personal guide who shows it and tells it like it is with raw emotion. In performative mode the filmmaker gives a strong "what's it like to be there" perspective on a world, a culture or an event in history that the audience would otherwise never know. In "Tongues Untied" (1989) the late African-American filmmaker Marlon Riggs combines actuality, re-enactments and his personal account to shine a light on black gay American identity.

Ethics and Representation:

An ethical code of documentary practice allows us to address the imbalance of power that often arises between filmmakers and both their subjects and their audience. It affirms, among other things, the principle of informed consent for subjects, inflected to acknowledge that documentary filmmaking is more of an ethical code of documentary practice allows us to address the imbalance of power that often arises between filmmakers and both their subjects and their audience. It affirms, among other things, the principle of informed consent for subjects, inflected to acknowledge that documentary filmmaking is more of an artistic practice than a scientific experiment.

In a nutshell, a guiding statement, akin to the Hippocratic Oath that places "Do no harm" above all, might propose, "Do nothing that would violate the humanity of your subject and nothing that would compromise the trust of your audience."

Such a statement is patently vague or fuzzy. What compromises trust? What violates another person's humanity? The vagueness is not accidental. It is similar to any definition of documentary itself. It speaks to the historical context in which ethics are put to the test.

The history of documentary filmmaking is littered with the remains of debates of what might violate subjects or deceive audiences. The sharp attacks by proponents of a strictly observational style on those who advocated a more openly participatory style--represented by, say, Ricky Leacock as the observer and Jean Rouch as the participant--were far from fuzzy. Similarly, debates about whether filmmakers who film in other cultures sought to use subjects to stand for generic qualities that might border on stereotypes was far from fuzzy either when it involved a

particular film such as Robert Gardner's *Dead Birds* or even Robert Flaherty's *Nanook of the North*. Documentary conventions change. With those changes, judgments about what compromises trust or violates another's humanity will change as well. That said, it is still possible to sketch out some of the ethical issues that arise with contemporary documentary practice in further detail.

Researching for Documentary:

Any reputable documentary maker will tell you that the main difference between a good documentary and a great one comes down to the quality of your research. Many filmmakers don't necessarily come pre-equipped with a whole host of research skills – indeed, being a great researcher doesn't always or even often occupy the same skill set as being a really great filmmaker.

Unfortunately, unless you want your documentary to be at best a half-effort, or at worst, strikingly poor, you're gonna have to hone your research skills. Luckily, Together have got you covered and have put together a beginner's guide to carrying out research for budding documentary makers.

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Before you even begin looking for research sources, you need to find an interesting angle on your chosen topic. The best way to do this is by brainstorming, ideally with other people, to get a sense of the already-covered information. After all, nobody wants to hear the same facts over and over again.

Writing Proposal:

Write a professional proposal that consists of a synopsis, a short treatment and storyboard or visual treatment for your documentary as outlined below. This will form the basis for the production go-ahead for your project. In any proposal, even for a documentary, you must think into the future and describe what you imagine your film will be like. Even if the final film ends up being very different because you are planning an observational film which will follow your character(s) through uncharted locations and situations, you should have a script or outline in mind. The proposal will give your readers (and possible funders/producers) a strong sense of the

themes, formal structure and visual storytelling methods you will be using. If you are doing a poetic work, for example, make the writing as poetic as possible, if you are doing a rhetorical film or taking up social justice issues, your proposal should reflect the mode and concerns. A well-written proposal is essential if you want to approach arts councils, commissioning editors, producers or private funders. But, as importantly, if not more importantly, it's an invaluable process for you because it makes you think concretely and coherently about your film. You will find yourself envisaging new sequences and possibilities and discarding ideas that don't work. Areas for further research will become evident and you will begin to get a strong sense of the stylistic approach your content leads you to.

PROPOSAL CONTENTS

1. Cover page that should include strong visuals, your film title, date and name.
2. Table of Contents
3. Format of your film (eg. Digital Video, 16mm, etc.), colour or black and white, proposed length.
4. One-liner that descriptively and compellingly introduces your film.
5. One paragraph synopsis, written using visual language and suggesting stylistic approach
6. Treatment which describes your theme, your story outline, structure, style, documentary mode, point of view, potential interviewees, questions you and the film will be asking, locations, music, etc. (photographs, digital imaging, music etc.)? Is there a shooting or editing style that will convey your structure or content? Are you using narration? Are you personally in the film? If so, what is your function? Is there a particular genre or convention that you are using? This section should indicate your overall style and approach.
7. Audience: describe the communities you hope to attract, organizations that you hope will use your film, educational institutions, what broadcasters would be appropriate, etc.
8. Background and Research: This can include the current status of the project, why you are drawn to the subject and/or a particular stylistic approach/documentary mode.

Documentary Crew:

A film crew is a group of people, hired by a production company, for the purpose of producing a film or motion picture. The crew is distinguished from the cast as the cast are understood to be the actors who appear in front of the camera or provide voices for characters in the film. The

crew is also separate from the producers as the producers are the ones who own a portion of either the film company or the film's intellectual property rights. A film crew is divided into different departments, each of which specializes in a specific aspect of the production. Film crew positions have evolved over the years, spurred by technological change, but many traditional jobs date from the early 20th century and are common across jurisdictions and film-making cultures.

There are, however, a handful of key roles that every team should make an effort to fill. In this post, we'll break down these crucial roles and explain why it would be in your best interest to have them with you when you go to camera.

Assistant Director

On a full-scale crew, you will find multiple ADs: a 1st AD, 2nd AD, a second 2nd AD, and a 3rd (Trainee) AD. Each one forms a link in the chain of command from the director down to the individual departments. Taken as a whole, the purpose of the AD team is to hash out the shooting schedule, create and distribute call sheets, relay orders from the director, and keep everyone informed and on time. They're masters of communication and addressing problems before they boil over. Having at least one AD on your team will guarantee a smoother shoot.

Director of Photography

This one is kind of a given, but the importance of a quality DP cannot be understated. It's their job to capture your cinematic vision on camera. A qualified DP will be able to tell you exactly what kind of equipment you'll need to achieve your desired look, and design the appropriate lighting plans. They'll also figure out the best way to frame your scenes, position actors, and move the camera – most of all, they'll make it look good. It's not unheard of for DPs to serve double duty as their own Camera Operator, which can be a boon for smaller crews. This is one position you do not want to skimp out on.

1st Assistant Camera

Even if your DP is operating their own camera, they can't do it all themselves. This is where the 1st A.C. comes in. They make sure that the camera is working properly, that the lenses are clean, and that all necessary equipment is ready to go. The most important aspect of the Camera Assistant's job is pulling focus – meaning they work with your Camera Operator / DP to ensure that the subject of a shot remains in focus throughout a take. This is accomplished by setting marks that reflect where actors or objects will be in relation to the camera, determining the distance, and then adjusting the focus on the lens to maintain a sharp image. This is a very technical and highly skilled job, and is indispensable to achieving a true cinematic look. role call camera team

Gaffer

The gaffer is responsible for executing your DP's lighting plan. This means choosing the appropriate lights, flags, filters, and corresponding lighting apparatus, then positioning them to achieve the look that you and your DP are shooting for. On smaller crews, the gaffer will also be responsible for making sure that the lighting setups are properly (and safely) powered. A fun note on etymology: gaffing originally referred to manually moving overhead lights on studio lighting grids using a long, hooked pole called a gaff.

Grip

No grip, no guts. Grips are the film crew's muscle. They load in gear and assemble, maintain, and move the heavy equipment that makes filmmaking possible: dollies, tripods, C-stands, sandbags, cranes – you name it. It's physically demanding work, but a good grip is more than just a strong back. They keep your shoot sturdy and safe, and rig equipment setups that will help you achieve the shots you need.

Sound Recordist

As we've discussed in a previous article, bad sound can sink your project. Having someone on location with the equipment and experience to properly capture sound is absolutely crucial. Ideally, this person should know how to operate microphones, ride gain, run a mixer, and be attuned to their environment – they'll be able to hear things that you can't, and will work to make sure that unwanted noise doesn't end up on the track.

Production Assistant

A PA's job is to do the work that nobody else has the time (or desire) to do. They're always on their feet, lending a hand when needed, or running errands. They're a vital, if unsung fixture of any film crew. In the context of a small team, a PA can handle a variety of roles to make the shooting process more manageable: they can help with the load out, be a one-person locations department and clean up your shooting location after wrap, or take care of craft service. Best of all, you don't need to pay them very much (sorry PAs).

If you manage to get these roles filled on your next project, it is guaranteed to pay off at the end of the day. You'll find the shooting process smoother and less stressful, and if all goes to plan, you'll come out of it with a professional looking product. Remember, your Celtx Studio's Catalog, Budgeting, & Scheduling tools make managing your crew and production fast, efficient, and easily accessible.

Editing Styles:

Montage: The idea of montage triggers memories of family reunions, summer camp, fond times looked back upon with wistfulness. A typical person would consider montage and then recall the videos often created to summarize a specific time spent, such as a great summer filled with fun activities, or embarrassing family photos brought out each holiday season. However, montage is a serious tool of filmmakers and has been for many years. One of the most interesting and different theories of montage is known as Soviet montage.

Soviet montage is the editing of clips or photos together in order to get a certain point across. The goal of soviet montage is to create an idea which is clearer when all the images are viewed together than when they are viewed separately (Johnson). Although only around 30 films have ever been made in this style, it is considered to be a very important and influential theory of film (Trischak). Soviet montage was first pioneered in Russia post revolution, but before Stalin took power (Barrance).

The Soviet montage movement began around 1924 and lasted until 1930 (Trischak). After the Russian revolution took place in 1917, filmmakers found themselves short on supplies. They felt that the only option was to use found pieces of film from previous projects and present them together in a different way with a vastly different meaning. This theory of filmmaking was first pioneered by Lev Kuleshov who conducted an experiment which proved that viewers reacted differently to the same image, depending on the images which were shown before or after it. (Barrance). One of the most notable characteristics of Russian montage filmmaking is the insignificance of the individual. Typically, one character does not represent one person, but a group of people, such as an economic class or ethnic group (Trischak).

Sergei Eisenstein is considered to be the most famous filmmaker associated with Soviet montage, Eisenstein's main goal was to take propaganda and present it in a different way in order to harness the emotion of the Russian people and lead them towards a new revolutionized society. Eisenstein was the first to use what are now considered to be the defining characteristics of soviet montage. He would take images and alter how long they would stay on the screen, specific movement and change of scenery, and would associate certain images with particular emotions. (Barrance)

All of the most famous instances of this theory take place in Eisenstein's films. One of the most interesting takes place in the film *October* (1927). In this film Eisenstein is expressing his views on religion and world culture. Various scenes of religious memorabilia are portrayed one after the other, making the assertion that all religion is the same, perpetuating the idea of acceptance (Barrance).

Soviet montage can not only be used to illustrate a philosophical point, but can also manipulate how a viewer perceives a certain event. In another of Eisenstein's films *Battleship Potemkin* (1925), there is a sequence known as "Odessa Steps." In this scene Eisenstein uses scenes from an incident which would in real time only take several minutes, and stretches it to last seven minutes, therefore manipulating the viewers perception of time (Johnson). This film is so highly respected that in 1958 it was voted to be the best film ever made by a group of critics from around the world (Sergei Eisenstein: The Art and Science of Cinema).

Soviet montage is an intellectual form of filmmaking which can be used in order to make meaningful and poignant commentary on society and its values. Pioneers such as Eisenstein created a theory of film which is world renowned and is still respected to this day.

UNIT 1: Global politics and Media

Globalisation: barrier free economy, multinationals and development

Globalisation is a process that cannot be stopped any more unless everything stops (Khanna Parag, 2008,). **Globalisation** is the process by which the world is becoming increasingly interconnected as a result of massively increased trade and cultural exchange. Globalisation has increased the production of goods and services. The result of globalisation can be seen as increased urbanisation and cities acting as centres for the global economy, demographic changes due to international migration and rise of multinational societies, emergence of English as the working language and social and environmental impacts. Globalisation has both positive and negative effects to the developed and developing nations. Some of these are as under:

Positive Impact of Globalisation

- Employment
- New Methods of Working

Negative Impact of Globalisation

- Labour Exploitation
- Environmental concerns

Forms of Globalisation

Economic - Economic globalization refers to the widespread international movement of goods, capital, services, technology and information. It is the increasing economic integration and interdependence of national, regional, and local economies across the world through an intensification of cross-border movement of goods, services, technologies and Capital. Economic globalisation primarily comprises the globalisation of production, finance, markets, technology, organizational regimes, institutions, corporations, and labour. Globalisation has had a profound impact on the world. Technological developments and progress in communication and transport technologies have reshaped the way we interact.

WTO promote free trade, therefore, removing barriers between countries. A rapid growth of **Transnational Corporations (TNCs)** since the 1970s has been a major factor.

The increased international trades and the **TNCs** have allowed the speed up of economic globalisation in the later 50-60 years.

Cultural - Western culture has spread to all parts of the world through cinema, television, internet, newspapers and magazines. Western media, food, sports, arts and **leisure** can be seen all over the world. People around the world have access to different cultures due to improved communication and technologies.

Political - The influence of nation states has diminished in many areas as more and more countries organise themselves into trade blocs. The influence of Western democracies on developing countries has also been strong.

The mass media are seen today as playing a key role in enhancing globalisation, facilitating culture exchange and multiple flows of information and image between countries through international news broadcasts, television programming, new technologies, film and music. If before the 1990's mainstream media systems in most countries of the world were relatively national in scope, since then most communication media have become increasingly global, extending their reach beyond the nation-state to conquer audiences worldwide. International flows of information have been largely assisted by the development of **global capitalism**, new technologies and the increasing **commercialisation** of global television, which has occurred as a consequence of the **deregulation** policies adopted by various countries in Europe and the US in order to permit the **proliferation** of cable and satellite channels.

Free trade means that countries can import and export goods without any tariff barriers or other non-tariff barriers to trade. Essentially, free trade enables lower prices for consumers, increased exports, benefits from economies of scale and a greater choice of goods.

The most common barrier to trade is a tariff—a tax on imports. Tariffs raise the price of imported goods relative to domestic goods (goods produced at home). From the early days of the Silk Road to the creation of the General Agreement on Tariffs and Trade (GATT) and the birth of the WTO, trade has played an important role in supporting economic development and promoting peaceful relations among nations. The General Agreement on Tariffs and Trade was a free trade agreement between 23 countries that eliminated tariffs and increased international trade. It was the first worldwide **multilateral** free trade agreement. It was in effect from January 1, 1948 until January 1, 1995. It ended when it was replaced by the more robust (Strong) World Trade Organization. The WTO was born out of the General Agreement on Tariffs and Trade (GATT), which was established in 1947. The World Trade Organization is a global organization made up of 164 member countries that deals with the rules of trade between

nations. Its goal is to ensure that trade flows as smoothly and predictably as possible. The purpose of the WTO is to ensure global trade **commences** smoothly, freely and predictably. The WTO creates and embodies the ground rules for global trade among member nations, offering a system for international commerce.

Purpose

The purpose of GATT was to eliminate harmful trade protectionism. That had sent global trade down 65 percent during the Great Depression. GATT restored economic health to the world after the devastation of the depression and World War II.

Pros

For 47 years, GATT reduced tariffs. This boosted world trade 8 percent a year during the 1950s and 1960s. That was faster than world economic growth. Trade grew from \$332 billion in 1970 to \$3.7 trillion in 1993.

It was such a success that many more countries wanted to join. By 1995, there were 128 members, generating at least 80 percent of world trade.

By increasing trade, GATT promoted world peace. In the 100 years before GATT, the number of wars was 10 times greater than the 50 years after GATT.

For example, most Indians know English. It allows them to work in call centres helping countries like USA. It has been a major reason for call center outsourcing.

Cons

Low tariffs destroy some domestic industries, contributing to high unemployment in those sectors. Governments subsidized many industries to make them more competitive on a global scale. U.S. and EU agriculture were major examples.

Like other free trade agreements, GATT reduced the rights of a nation to rule its own people. The agreement required them to change domestic laws to gain the trade benefits. For example, India had allowed companies to create **generic versions** of drugs without paying a license fee. This helped more people afford medicine. GATT required India to remove this law. That raised the price of drugs to a level out of reach for many Indians.

A transnational corporation (TNC) or a multinational corporation is a company that operates in at least two countries. Globalisation has allowed many businesses to set up or buy operations in other countries. TNCs invests in other countries by buying factories or shops, this is called inward investment or foreign direct investment.

The multinational companies are considered to have a positive role for the economies of the developed countries, as well as for those of the developing countries because they contribute to the efficient and productive utilization of the world resources, which increases wealth and economic prosperity. The transnational companies bring along in the

hosting countries capital, technology, high-level management, they create workplaces, participate in the increase of work productivity, of exportation competitiveness, of production, of sales, of budget incomes, and they improve the balance of payments.

On the other hand, the multinational companies' role is a negative one as well, given that they undermine democracy, affect national societies and outline a new form of capitalism. This type of corporation's merge societies in an amorphous mass inside which individuals lose control over their own lives, becoming slaves of these exploiting companies whose only preoccupation is profit. The rise of work productivity by technology, information, innovation transfer replace, over time, the workforce, generating a higher unemployment rate, especially among the low-qualified or unqualified individuals. Furthermore, these companies actually bring profit to all states, as they represent main sources of capital, technology and market access for almost each country. The activities of the multinationals have a strong impact on the distribution of wealth and of economic activities between the national economies.

McDonald's is an example of a typical TNC or an MNC in the service operation. It is the world's largest chain of hamburger fast-food restaurants. McDonald's is the world's second largest private employer and in 2014 the company had an annual revenue of \$27.4 billion. To cater for different cultures in different countries, local **specialisation** is used. Different types of burgers and menus are available in different countries. Whether it's the structure/ interior of the outlets, the types of meat they use or by using the local products, McDonald's are successfully selling their food to people of different cultures.

Globalisation of TV Formats

A format is a show that can generate a distinctive narrative and is licensed outside its country of origin in order to be adapted to local audiences". A TV format is the overall concept and branding of a copyrighted television program. The most common type of formats are those in the television genres of game shows and reality shows, many of which are remade in multiple markets with local contestants. Recent examples include *Survivor*, *Americas got talent*, *Deal or no deal*, *Who Wants to Be a Millionaire?*, *Pop Idol* and *Big Brother* that have all proved successful worldwide.

Television formats are programs developed in one market and offered internationally for local adaptation. The license is sold in the form of a 'production bible,' a compilation of production information including technical requirements, lessons learned, a shooting schedule, a crew list, a budget sample, and anything else of value to a production team.

The various methods of TV transmission

Programming broadcast is the transmission of television stations' programming (sometimes called channels) that is often directed to a specific audience.

There are several types of TV broadcast systems:

- **Pay-per-view (PPV):** a television service in which viewers are required to pay a fee in order to watch a specific programme. PPV delivers live content while VOD does not
- **Video on Demand (VOD):** Video on demand (VOD) is a programming system which allows users to select and watch/listen to video or audio content such as movies and TV shows whenever they choose, rather than at a scheduled broadcast time. VOD is often in a monthly payment scheme but not PPV. VOD is used mostly for movies and TV shows
- **Satellite TV:** Television from providers like DirecTV, delivered via radio waves.
- **Cable TV:** Television delivered via coaxial cable connection.
- **IPTV (Internet Protocol Television):** Television from providers like Prism TV, delivered over the Internet via a privately-managed network.
- **OTT Streaming:** Television from third-party services like Netflix and YouTube, delivered over the open Internet.

Successful value creation requires successful value delivery. The distribution channels don't just serve markets, they also make markets by converting potential buyers to profitable customers. The company's cost structures and pricing decisions are directly

linked to the distribution medium of the product or service. It explains why prices are different for the same product between online channels and physical stores. Formally, marketing channels are sets of interdependent organizations participating in the process of making a product or service available to the consumer for consumption. Since the final price of the product is inclusive of the margins earned by channel intermediaries, companies continuously strive to reduce channel costs. Digitization of the economy has not only resulted in better control over the marketing channel but also has created multiple channels through which products and services can be delivered to consumers. This "digital disruption"

of marketing channel has revolutionised the Media & Entertainment industry and continues to do so with the penetration of low-cost internet. Traditionally, TV broadcasting was a niche segment with only a few players. There were only a handful of networks which could reach a massive audience. In India, television was launched in 1959 with British Broadcasting Channel (BBC) as the only broadcaster. National telecasts were introduced only by 1982 with the creation of Doordarshan. The arrival of the cable TV, couple of decades ago was major revolution of the 90's. Offering better signal reception and expanded viewing choices, it not only fragmented audiences but also introduced an intermediary in the channel namely the cable operator. The cable operators controlled distribution by deciding which channels they would carry and where those channels would be placed. This shift, ironically, benefited the traditional broadcasting companies. Apart from the revenue from advertising, TV companies now had an alternative source of revenue in the form of fees from the operators. This fee could be substantial because the broadcasting companies have a near monopoly over pricing.

With the evolution of the "digital customer" the need for rich content and personalized experience has emerged. The growing mobile internet and smartphone penetration has given rise to an alternative channel for media consumption. Urban consumers, in the age group 15-34, which constitutes ~75% of total internet base, have been early adopters of OTT (Over the Top) and VoD (Video on Demand) services. Streaming video is changing every existing relationship in the TV value chain. The very neat and structured relationships studios and rights holders relying on broadcast and cable networks to air their content, and networks relying on pay TV distributors to deliver their content into people's homes—

are no longer intact. The industry is now able to bypass cable operators altogether and sell direct to the consumer through OTT platforms. Digital players like Google, Amazon, Netflix, and Facebook have emerged with entirely new business models combined with diverse content to engage users. Three forces responsible for this revolution are:

- Advances in technology
- Increasing availability of high-quality content
- Low-cost content production models

A TV network is, at its core, a compilation of different types of content (ads, shows, promotions, graphics elements, etc...) scheduled to be played out in a way to best attract the largest number of viewers (ratings). A network is comprised of three interrelated parts that all must work together:

1. **Content:** These are all the elements you see on the screen. It can be the program that entertains you, the ad that distracts you, or the graphics that sooth you. *Content is the product that is delivered.*
2. **Distribution:** *This is how the product is delivered.* To deliver the content a programmer negotiates for carriage on a distribution platform then schedules the content through a media workflow infrastructure (both hardware and software based) then "plays out" the content electronically to numerous outlets such as:
 - a. **CDN** (content delivery network) via an internet connection to an OVP (online video platform) that will package the content and deliver to new media screens (phone, computer, streaming services, etc...)
 - b. **Broadcast** over an FCC licensed frequency using a transmitter and an antenna. This is free-to-air content a viewer can receive with a digital antenna.
 - c. **Cable TV or MVPD.** This is the method used by the majority of US TV viewing households. An MVPD receives signals from programmers via a terrestrial Broadcast signal, satellite feed, and/or fiber connection.
 - d. **Satellite or DBS:** Dish Networks and DirecTV are the largest players in this space.
3. **Revenue:** If you're not making money get a cheaper hobby! A network receives revenue based upon the number of viewers they have viewing their programming or have access to their channel. The major sources of revenue are as follows:
 - e. **Advertising avails:**
 - f. **Sponsorship dollars:** these range from closed captioning sponsors to network sponsors.
 - g. **Subscriber fees:** There are two main forms of sub fees:
 - i. Fees paid to the programmer for allowing the content aggregator (cable system satellite system, broadcaster, streaming service, etc...) to broadcast their programming. These are per sub per month fees.
 - ii. Fees paid to subscribe to a channel.

At the end of the day, the main function of TV channels is to make money in exchange for providing people with entertainment. There are two main ways they can do this: produce their own content, or purchase the right to display others content with the hope that it will make more money than it cost them to by. To produce their own content, TV providers have to raise money to pay for the production. To display others content, they

need to purchase the legal rights to display that content, either exclusively (i.e. they are the only provider that can show it) or shared (i.e. other providers can purchase the rights as well).

Commercial TV networks (e.g. free networks such as ABC, NBC, CBS and FOX) make money off advertising. Shows are aired with ads at appropriate points. Therefore, shows that will attract the most viewers (so that advertisers will pay the most) are preferred.

Cable TV networks (e.g. pay TV networks such as HBO and AMC) make money off a combination of subscription fees and ads. Therefore, the goal is to produce and show content that people will watch and that will attract viewers. That is, cable networks need more people to subscribe, and therefore they use their shows as advertising. For example, HBO can advertise that you need to subscribe to watch *Game of Thrones*, which attracts people to pay for their service.

Finally, streaming media works entirely on subscription. Netflix uses shows like *House of Cards* and *Stranger Things* to draw in subscribers. They don't make any money off you watching the shows, but they do off people joining to watch the shows...

Global Networks: Information society, network service economy, movement of intangibles

The most valuable commodity in this age is information. Information provides awareness, knowledge, and power! We live in a competitive world and in any area of competition, friendly or otherwise, the most informed party has the upper hand. An "informed" person generally makes the most appropriate decision. Information is the key word in our age. A society characterised by a high level of information intensity in the everyday life of most citizens, in most organisations and workplaces; by the use of common or compatible technology for a wide range of personal, social, educational and business activities, and by the ability to transmit, receive and exchange digital data rapidly between places irrespective of distance.

One of the earliest uses of the term, information society can be found in the work of sociologist Daniel Bell. In the 1970s he wrote a book called *The Coming of the Post-Industrial Society*, where he argued that the United States was moving away from an industrial society to a post-industrial society. An industrial society is when the focus is on the production of goods. The information society is one in which information is the defining feature, unlike the industrial society where steam power and fossil fuels were distinguishing elements. Post-industrial society in which information technology (IT) is transforming every aspect of cultural, political, and social life and which is based on the production and distribution of information... The term *post-industrial* described the decline of employment in manufacturing and an increase in service and professional employment noted by Machlup (1962) and Porat (1977). Knowledge and information were viewed by Bell as the strategic and transforming resources of post-industrial society, just as capital and labour were the strategic and transforming resources of industrial society.

While the term is used frequently, it is imprecise on inspection. There are six analytically separate definitional criteria used by commentators on the information society.

1. Technological: The most common definition is to highlight an increase in information and communications technologies (ICTs) as signalling the emergence of an information society. It is suggested, often implicitly, that ICTs both define and create the information society. Technological measures appear robust, but on examination they are vague (e.g. they range from photocopiers to PCs, the Internet to video games, to digitalization in general).

2. Economic: This suggests that the information society is one in which the contribution of information businesses and trades (e.g. publishing, entertainment, consultancies) has expanded over time to now outweigh manufacture and agriculture in terms of contribution to Gross National Product. Generally, such analysts adopt the term

information economy to describe a situation in which information industries command the major proportion of GNP.

3. Occupational: This approach is most closely associated with Daniel Bell's theory of post-industrialism. Bell's book *The Coming of Post-Industrial Society* (1973) **delineates** an information society as one in which most jobs are informational. Thus, occupations such as researchers, lawyers, counsellors, and teachers are information intensive, involving information production, analysis, and communication, and the outcome is a changed condition rather than an object. This is in contrast with industrial society jobs such as machine operation and mining where the product is a physical good and the labour is largely manual.

4. Spatial: Here the stress is on networks along which information flows. Information networks have profound effects on the organization of time and space, as well as on other relations, allowing real-time communication on a planetary scale. Manuel Castells's (1942) trilogy *The Information Age* (1996-98) is the major statement of this position. It is synonymous with what he terms a network society.

5. Cultural: This approach is one which stresses the growth of symbols and signs over recent decades, an information society being one in which there is pervasive television, advertising, a **plethora** of lifestyles, multiple ethnicities, many hybridized musical expressions, the world wide web, and so on. It is associated closely with Cultural Studies and interest in post-modernism.

6. Theory: This suggests that an information society is one in which theoretical information/knowledge (that which is abstract, generalizable, and codified in texts) takes precedence over the practical and is constitutive of virtually everything that is done. This is contrasted with previous societies in which **practical exigencies**, know-how, and **custom predominated...**

Advances in the capabilities of information technologies to process large quantities of information quickly have been a crucial factor in the development of the information society. These technologies are of two types, computer power and transmission capability. According to Beniger (1986), its roots go back to a crisis of control evoked by the Industrial Revolution in the late 1800s. Industrialization speeded up material-processing systems. However, innovations in information processing and communications lagged behind innovations in the use of energy to increase productivity of manufacturing and transportation systems. Development of the telegraph, telephone, radio, television, modern printing presses, and postal delivery systems all represented innovations important to the resolution of the control crisis, which required replacement of the traditional bureaucratic means of control that had been depended on for centuries

before. There can be no doubt that the use of information technologies is significantly changing the structures of advanced societies.

Our rapid evolution to an information society poses many important sociological questions about how our increased dependence upon information technologies influences social interaction and other aspects of human behavior. The information age provides new challenges for nearly all areas of sociology. It influences how and from whom we learn, with lifelong distance education changing the once essential learning triangle of professor, student, and classroom. New types of crime, such as creating and spreading computer viruses, have been elevated from curiosities to major threats to the functioning of organizations, society, and the world order. In the United States, Alvin Toffler and John Naisbitt wrote popular books that predicted an inevitable tide of technological growth that would sweep away every aspect of traditional life; societies and people that did not adapt would be left behind.

Network service economy

The interlinking of business processes and economic activity through the use of information technology. A situation in which a business will benefit through the feedback provided by those who use the product or service. Network economics is a product of the network effect, whereby an increase in the value of a good or service increases as the number of buyers or subscribers multiplies. For example, online communities like LinkedIn and Twitter continually evolve with respect to their service offerings, providing a wider set of products as their online communities continue to grow.

Over the past decade, the world has seen significant changes in how people and businesses connect to each other. Social networks let billions of people collaborate in a variety of ways. Meanwhile, business networks have enabled new types of **frictionless commerce**. Malone and Laubacher (1998) indicate that the Information Revolution has changed the nature of business activity. Because information can be shared instantly and inexpensively on a global scale

Schwartz (1999) writes that in the future, large companies will manage their purchasing, invoicing, document exchange, and logistics through global networks that connect a billion computing devices. At global scales, Tapscott (1996) indicates that companies can provide 24-hour service as customer requests are transferred from one time zone to another without customers being aware that the work is being done on the other side of the world. Boyett and Boyett (2001) point out that the larger the network, the greater its value and desirability. In a networked economy, success begets more success.

Kelly (1997) and Liebowitz (2002) put this into context by using the example of a fax machine. One fax machine by itself is useless. However, many fax machines networked together intelligently are very useful.

This rapid change will disrupt businesses and increase pressure on societies, particularly on jobs and economic opportunity. Business models and the nature of work will be profoundly changed. It is far from clear whether this technology-driven disruption will favour existing Internet platforms or bring greater competition and entrepreneurship. Either way, governments and society at large will need to quickly adapt to the new economy and its policy challenges.

Movement of intangibles

PENDING.....

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Radio Productions

What is Radio?

Radio is the technology of signaling or communicating using radio waves. Radio waves are electromagnetic waves of frequency between 30 hertz (Hz) and 300 gigahertz (GHz). They are generated by an electronic device called a transmitter connected to an antenna which radiates the waves, and received by a radio receiver connected to another antenna. Radio is very widely used in modern technology, in radio communication, radar, radio navigation, remote control, remote sensing and other applications. In radio communication, used in radio and television broadcasting, cell phones, two-way radios, wireless networking and satellite communication among numerous other uses, radio waves are used to carry information across space from a transmitter to a receiver, by modulating the radio signal (impressing an information signal on the radio wave by varying some aspect of the wave) in the transmitter. In radar, used to locate and track objects like aircraft, ships, spacecraft and missiles, a beam of radio waves emitted by a radar transmitter reflects off the target object, and the reflected waves reveal the object's location. In radio navigation systems such as GPS and VOR, a mobile receiver receives radio signals from navigational radio beacons whose position is known, and by precisely measuring the arrival time of the radio waves the receiver can calculate its position on Earth. In wireless remote control devices like drones, garage door openers, and keyless entry systems, radio signals transmitted from a controller device control the actions of a remote device.

Applications of radio waves which do not involve transmitting the waves significant distances, such as RF heating used in industrial processes and microwave ovens, and medical uses such as diathermy and MRI machines, are not usually called *radio*. The noun *radio* is also used to mean a broadcast radio receiver.

Radio waves were first identified and studied by German physicist Heinrich Hertz in 1886. The first practical radio transmitters and receivers were developed around 1895-6 by Italian Guglielmo Marconi, and radio began to be used commercially around 1900. To prevent interference between users, the emission of radio waves is strictly regulated by law, coordinated by an international body called the International Telecommunications Union (ITU), which allocates frequency bands in the radio spectrum for different uses.

HAM Radio

Amateur radio, also known as ham radio, describes the use of radio frequency spectrum for purposes of non-commercial exchange of messages, wireless experimentation, self-training, private recreation, radiosport, contesting, and emergency communication. The term "amateur" is used to specify "a duly authorized person interested in radio electric practice with a purely personal aim and without pecuniary interest;"^[1] (either direct monetary or other similar reward) and to differentiate it from commercial broadcasting, public safety (such as police and fire), or professional two-way radio services (such as maritime, aviation, taxis, etc.).

The amateur radio service (*amateur service* and *amateur-satellite service*) is established by the International Telecommunication Union (ITU) through the Radio Regulations. National governments regulate technical and operational characteristics of transmissions and issue individual stations licenses with an identifying call sign. Prospective amateur operators are tested for their understanding of key concepts in electronics and the host government's radio regulations.

Radio amateurs use a variety of voice, text, image, and data communications modes and have access to frequency allocations throughout the RF spectrum. This enables communication across a city, region, country, continent, the world, or even into space. In many countries, amateur radio operators may also send, receive, or relay radio communications between computers or transceivers connected to secure virtual private networks on the Internet.

Amateur radio is officially represented and coordinated by the International Amateur Radio Union (IARU), which is organized in three regions and has as its members the national amateur radio societies which exist in most countries. According to an estimate made in 2011 by the American Radio Relay League, two million people throughout the world are regularly involved with amateur radio.^[2] About 830,000 amateur radio stations are located in IARU Region 2 (the Americas) followed by IARU Region 3 (South and East Asia and the Pacific Ocean) with about 750,000 stations. A significantly smaller number, about 400,000, are located in IARU Region 1 (Europe, Middle East, CIS, Africa).

FM Broadcasting

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TYPES OF RADIO FORMATS

Do you remember the programmes you have heard on radio. Try and recall some of them. You may have heard the names of radio stations, from where the programmes are broadcast. Many of you would remember Vividh Bharati, AIR FM Gold or some private commercial station. You may also remember the time being mentioned and what programme you are going to listen to. These are called announcements. Announcements have been traditionally made by people who are known as announcers. The commercial radio channels may call them Radio Jockeys (RJs) or anchor persons. Before you learn about the different radio formats, you must know the ingredients of a radio format. As you know most of what is spoken on radio is written down. As you have already learnt that what is written for radio is heard and is referred to as ‘spoken word’ as against the ‘written word’. But the spoken words on radio is written down or what is generally called ‘scripted’. A Radio format can be split into three parts: They are:-

(a) Spoken Word or Human Voice

(b) Music

(c) Sound Effects

All radio formats have the above three ingredients. So let us first classify the spoken word format.
SPOKEN WORD

1. **Announcements:** These are specifically written clear messages to inform. They can be of different types. For example station/programme identification. These mention the station you are tuned into, the frequency, the time and the programme/song you are going to listen to. As mentioned already you find in today’s commercial radio channels, these announcements have become informal and resemble ordinary conversation. There can be more than one presenter in some programmes like magazines.

2. Radio talk: The radio talk probably is the oldest format on radio. There has been a tradition in India and Britain to invite experts or prominent persons to speak for 10 or 15 minutes on a specific topic. These talks have to go through a process of being changed into radio's spoken word style. Over the years, these long radio talks have become unpopular. Instead, today, shorter duration talks are broadcast. Of course, you can listen to these talks only on public service broadcasting stations.

3. Radio interviews: Have you ever interviewed anyone? Probably yes. In the media, be it the newspaper, magazine, radio or television, journalist's use this technique of asking questions to get information. There can be different types of interviews in terms of their duration, content and purpose.

Firstly, there are full-fledged interview programmes. The duration of these may vary from 10 minutes to 30 minutes or even 60 minutes depending up on the topic, and the person being interviewed. Most of such interviews are personality based. You might have heard of long interviews with well-known people in the field of public life, literature, science, sports, films etc.

Secondly, there are interviews which are used in various radio programmes like documentaries. Here the interviews are short, questions specific and not many. The purpose is to get a very brief, to the point answer.

Thirdly there are a lot of interviews or interview based programmes in news and current affairs programmes. Have you heard such interviews on radio?

With phone-in-programmes becoming popular, you might have heard live interviews with listeners. These interviews have been made interactive.

There is another type of interview based programme. Here generally just one or two questions are put across to ordinary people or people with knowledge on some current topic to measure public opinion. For example when the general budget or the railway budget is presented in the parliament, people representing radio go out and ask the general public about their opinion. Their names and identity may not be asked. Such programmes are called 'vox pop' which is a Latin phrase meaning 'voice of people'.

You have to be very inquisitive and hard working to be a radio interviewer with good general awareness and communication skills.

4. Radio discussions: - When you have a problem in your family or with your friends, don't you say "let us discuss?" Yes we do. Through a discussion we can find out a solution to problems. In any discussion there are more than 2 or 3 people and then ideas can be pooled to come to some conclusion. In radio, this technique is used to let people have different points of view on matters of public concern. Radio discussions are produced when there are social or economic issues which may be controversial. So when different experts meet and discuss such issues, people understand various points of view. Generally, these discussions on radio are of longer duration-say 15 to 30 minutes. Two or three people who are known for their views and a well informed senior person or journalist who acts as a moderator take part and discuss

a particular topic for about 30 minutes. The moderator conducts the discussion, introduces the topic and the participants and ensures that everyone gets enough time to speak and all issues are discussed.

5. Radio documentaries/features: If you see a film in a movie hall, it is generally a feature film, which is story based and not real. But there are also documentary films which are based on real people and issues. A lot of programmes you see on television are educational and public service documentaries. Radio also has this format. Unlike documentary films, radio documentaries have only sound – i.e. the human voice, music and sound effects. So a radio documentary is a programme based on real sounds and real people and their views and experiences. Radio documentaries are based on facts presented in an attractive manner or dramatically. Radio documentaries are radio's own creative format. The producer of a documentary needs to be very creative to use human voice, script, music and sound effects very effectively. Radio documentaries are also called radio features

6. Radio drama: A Radio drama or a radio play is like any other play staged in a theatre or a hall. The only difference is that while a stage play has actors, stage, sets, curtains, properties movement and live action, a radio play has only 3 components. They are the human voice, music and sound effects. Radio of course uses its greatest strength for producing radio plays and that is the power of imagination and suggestivity. For example, if you want to have a scene in a radio play of a north Indian marriage, you don't have all physical arrangements made. All that you have to do is to use a bright tune on the shehnai and excited voices of people to create in a listeners' imagination, a wedding scene. The voice of the actors, music and sound effects can create any situation in a radio play.

7. Running commentaries: If you can't go to see a football or cricket match in a stadium, you may watch it on television. But for that you have to be at home or at some place where there is a television. But if you are

Travelling or outside, then you may listen to radio for a running commentary of the match. A commentator would give you all the details of the match such as the number of players, the score, position of the players in the field etc. So by listening to the running commentary, you get a feeling of being in the stadium and watching the match. The commentator needs good communication skills, a good voice and knowledge about what is going on. Running commentaries on radio can be on various sports events or on ceremonial occasions like the Republic Day Parade or events like festivals, melas, rath yatras, swearing in ceremony of ministers, last journey (funeral procession) of national leaders etc. Today radio running commentaries especially of cricket and other sports can be heard on your mobile phones.

8. Magazine programmes: You are familiar with magazines which are a form of print media. They are published weekly, bi-weekly, fortnightly or monthly. There are general magazines and magazines for specific readers. These magazines could be for children, women, youth or on health, sports, science or music. If you open any one of these magazines, you will find articles, reviews, features, photo features etc. Radio also has magazine programmes like those in the print media.

A radio magazine is broadcast at a particular time on a particular day of a week or a month. That means it has periodicity. Similarly it has plenty of variety in contents. Some or many formats of radio are included in a radio magazine. These may be talks, discussions, interviews, reviews, music etc. Likewise,

The duration of each programme or item in a magazine programme also vary. Another characteristic of a radio magazine is that it has a signature tune. A signature tune is an attractive piece of music which is specific to a programme. It can be like the masthead (title) of a magazine. A magazine programme also has a name and one or two presenters or anchor persons who link the whole programme. In the beginning, the titles of the day's programme will be given by the presenters after the signature tune. They also give continuity and link the whole magazine. Magazine programmes are generally broadcast for a special or specific audience. As the name suggests, a specific audience refers to listeners with specific needs as mentioned in the beginning.

9. NEWS: Among all the spoken word formats on radio, news is the most popular. News bulletins and news programmes are broadcast every hour by radio stations. In India, only All India Radio is allowed to broadcast news. Duration of news bulletins vary from 5 minute to 30 minutes. The longer news bulletins have interviews, features, reviews and comments from experts.

MUSIC: When we say radio, the first thing that comes to our mind is music. So music is the main stay in radio. There is no radio without music. Music is used in different ways on radio. There are programmes of music and music is also used in different programmes. These include signature tunes, music used as effects in radio plays and features. India has a great heritage of music and radio in India reflects that.

SOUND EFFECTS Let us see how sound can be used in radio formats:

Sound can play a major role in evoking interest.

Sound can be used for comic effects to evoke laughter.

Sound can be used to create certain moods or enhance them.

What are Radio Documentary/Feature/Magazine?

A radio documentary is a documentary programme devoted to covering a particular topic in some depth, usually with a mixture of commentary and sound pictures. Some radio features, especially those including specially composed music or other pieces of audio art, resemble radio drama in many ways, though non-fictional in subject matter, while others consist principally of more straightforward, journalistic-type reporting – but at much greater length than found in an ordinary news report. Radio Feature often is used as a synonym of radio documentary. However, there is a slight difference. Though radio feature resembles a documentary in the way it is made, but differs in its larger scope and subject/time variability. Radio magazine is an umbrella programme on a particular subject, which can have several programmes in it- documentary, features, interviews, music etc. There has to be a synergy in the content of the programmes.

Different types of Mikes:

Cardioid Microphones

Cardioid mics capture everything in front and block everything else. This front-focused pattern will let you point the mic to a sound source and isolate it from unwanted ambient sound, making it ideal for live performance and other situations where noise reduction and feedback suppression are needed. Cardioid mics surpass other polar patterns by far in terms of popularity, used widely in live performances, from karaoke to big arena concerts. Other common uses include miking loud instruments like drum kits and guitar speakers. Note that these types of mics add subtle sound coloration when the source is off axis, which is why mic position when speaking and singing is very important.

Super/Hyper Cardioid Microphones

These mics have the same front directionality, but have a narrower area of sensitivity compared to cardioids. This results in improved isolation and higher resistance to feedback. Because of their enhanced ability to reject noise, you can use these for loud sound sources, noisy stage environments or even for untreated recording rooms. On the flip side, back rejection is a bit compromised, so you will have to position unwanted sounds like stage monitors and drum kits on the dead spot sides.

Omnidirectional Microphones

These are microphones that capture sound from all angles. Because of their non-directional design and zero rejection, these mics capture nuances better, resulting in a more natural sound. You can use these mics in studios and other venues (like old churches) with great acoustics, and can also be used for live recording of multiple instruments, as long as the noise level is low. The obvious downside is that they lack background noise rejection and are prone to monitor feedback, which makes them unsuitable for loud and noisy venues.

Shotgun Microphones

Shotgun mics, also called Line and Gradient, feature a tube like design that make their polar pattern even more directional than hyper cardioids. The capsule is placed at the end of an interference tube, which eliminates sound from the sides via phase cancellation. This design results in a tighter polar pattern up front with longer pickup range. Although Shotgun mics are more commonly used for film and

Ribbon

While these mics are no longer as popular, Ribbon mics were once very successful particularly in the radio industry. The light metal ribbon used in these mics allows it to pick up the velocity of the air and not just air displacement. This allows for improved sensitive to higher frequencies, capturing higher notes without the harshness while retaining a warm vintage voicing. These days, interest for Ribbon mics have returned, especially since modern production ribbon mics are now sturdier and more reliable than their old counterparts, making them viable for live multi-instrument recording on venues where noise level is manageable. You can also use them for recording if you're looking for vintage vibe, or you can set it up in combination with dynamic or condenser mics for a more open sounding track.

Production for Radio:

Stages of Production:

The radio production process is broken into three simple stages:

- Pre-production
- Production
- Post-production

There are a lot of moving parts within each stage, and because of this, it is important to build in checkpoints and milestones along the way.

PRE-PRODUCTION

Pre-production begins the moment script development starts. It involves everything that happens before shooting begins: project kickoff, research, script writing and story boarding, casting, hiring crews, scouting and locking locations, scheduling post-production, and more. Anything and everything about a radio production's logistics are coordinated from scratch based on the script.

In the case of industry or commercial media, pre-production can include:

- Project kickoff
- Production schedule
- Script development
- Storyboards
- Post-production preparation

PRODUCTION

Production is when all the planning during script development and pre-production comes together. "Action!" is called, and that is when we are to start recording and fun begins. A professional audio production crew has an eye for detail and should be meticulous about everything, have a penchant for capturing great sound bites during interview.

POST-PRODUCTION

Post-Production – or editing – is the stage of production when the production team digs into the recorded audio footage and assembles it in accordance with the script. Music, and sound effects, are crafted and added, along with audio sweetening, and sound design.

Producing high-quality, professional audio takes an experienced team, solid pre-production strategies and project management skills, a tried-and-tested production process, and a quality assurance system.

Shutter/Aperture/ISO

Aperture defines how large the hole is through which the sensor sees the world. In photography, aperture is measured in units called F-numbers, F-stops or whatever else with this F-. Without going into details about what exactly this F- is (I would need to look it up myself to explain, physics again), all you really need to know is the following. The smaller the F-number is, the larger the aperture hole is, and the more light reaches the sensor. From now on by "large aperture" I will mean a large aperture hole (and a small F-number), and vice versa by "small aperture".

In practice, depending on the lens you have, you usually use F- values from about F4 (large aperture) to approximately F16 (small aperture). Some quality lenses support much larger apertures, for example my favorite Nikon lenses (85mm and 50mm) get to F1.8 or even F1.4. These are very light-sensitive lenses saving you in dark conditions (more about lenses and low-light photography).

In addition to the amount of light reaching the sensor, aperture affects another very important aspect: the depth of field. Imagine several objects located at different distances from the camera. Say a person 5 meters away, a bear 7 meters away, and a tree 10 meters away. The camera sees them all, but the question is: which objects are in focus? The larger the depth of field is, the more objects are in focus. And the smaller the aperture (the larger the F-number) is, the larger the depth of field is. Thus, to get only the person in focus (with the bear and tree out of focus), focus on the person and set the maximum aperture, such as F1.8. This is great for portraits with nice blurred backgrounds. To capture the whole scene, you also want the bear and tree in focus - use a greater F-number, such as F8 or more.

Note that aperture is not the only parameter affecting the depth of field. For example, the distance between the photographer and the subjects also plays a very important role. The closer you are to the first subject, the smaller depth of field becomes.

Shutter speed

Shutter speed is the time while the shutter curtain is open, exposing the sensor to light. Don't worry, there are no frightening F-numbers here :-). Shutter speed is measured in normal seconds. At bright day light, we usually use hundredths of a second. When cloudy, in shade etc., might be tenths of a second. At night it comes to full seconds.

While the shutter is open, the sensor records everything it sees. It does not realize what the objects are, it just divides the scene into millions of dots and records the color of every dot

during the exposure time. Imagine that it is quite dark, and we are shooting a moving car at the shutter speed of 1 second. With the speed of only 50 km per hour, the car will move by almost 14 meters during this time. The sensor will see the car at the initial position at the first moment. Then the car will move to a place where the sensor previously saw only the background, and the sensor will now see only the background at the car's initial position. And so on until the final car position. What will be on the resulting photo? A 14-meters long semi-transparent car! :-)

The car we obtained is not sharp, it has what is called motion blur. The motion blur is the result of shooting moving objects with long shutter speeds. This is the shutter speed side-effect you should always keep in mind. If you want to get a sharp object, make sure the shutter speed is fast enough to freeze its motion. If you want to get a motion-blurred object to emphasize the movement, make sure the shutter speed is slow enough.

ISO:

When you cannot get the right exposure with the aperture and shutter speed, it is time to think about the ISO sensitivity (also called ISO speed). It defines how sensitive the camera sensor is to light. With the same amount of available light, the higher the ISO sensitivity is, the more light will be captured by the sensor.

The "normal" ISO speed depends on your camera is either ISO 100 or ISO 200. This is what you start with. If you cannot get the right exposure by altering aperture and shutter speed, try to adjust the ISO speed. I cannot remember a situation when I needed to reduce the normal ISO speed. Aperture and shutter speed can reduce the amount of light as much as needed in most cases, with rare exceptions. There are also other ways to reduce the amount of light, such as lens filters. The ISO sensitivity control is usually useful with insufficient light. When ISO 100 is not enough, try ISO 200, ISO 400, etc.

This is not so simple, however. Aperture and shutter speed controls can be considered safe, because they alter a natural measure: the amount of light. The ISO sensitivity is more artificial, its increase comes at a price. The more sensitive the sensor becomes, the more image noise it creates. This is when the equipment quality becomes important in photography: expensive professional cameras usually allow much higher ISO speeds before the image noise becomes prohibitive.

<https://photographylife.com/photography-basics>

Exposure Triangle/Auto ISO

<https://photographylife.com/what-is-auto-iso>

Exposure Compensation

<https://photographylife.com/what-is-exposure-compensation/amp>

Metering Modes:

<https://photographylife.com/understanding-metering-modes>

Camera Modes:

When you buy a digital camera, it will come with a selection of camera modes.

These are pre-programmed settings that allow you to choose the optimum shutter speed and aperture value for the photograph you want to take. They are useful when you are starting out, but also for the experienced photographer who needs to capture a shot fast.

Automatic Mode: Automatic Exposure is when the camera chooses the optimum shutter speed, aperture, ISO and flash settings for your shot.

All you need to do is point and shoot. This can be good if you have no idea of what settings to choose and also when you need to shoot quickly.

Advanced Camera Modes: On most DSLR cameras, there will also be the letter modes – M (Manual), AV (Aperture-Priority), TV or S (Shutter-Priority) and P (Programmed Auto).

Manual mode required the photographer to set every single setting

Aperture-Priority allows the photographer to set the aperture value and the camera automatically sets the correct shutter speed

TV lets the photographer choose the shutter speed first (for example when shooting sports), and the camera automatically sets the correct aperture

P-Program mode is similar to Auto mode in that the shutter and aperture settings are determined by the camera, but the photographer can adjust other settings manually.

There are other scene modes, as Landscape mode, Sports mode, Food mode and Portrait mode.

Lighting Equipment and Techniques

Hard and Soft Light:

Photography is the capturing of light. A common lighting misconception made by those new to photography is that only the amount of photography light is important when it comes to taking a picture. But quality of light is one of the most vital aspects of picture making.

Quality of light is largely determined by the light's size and source. Other qualities, like color and direction are also integral to creating beautiful photographs, but they will be discussed in another article. Light is often described as hard or soft, and choosing one or the other will affect your photo's mood and overall appearance.

Hard light comes from a small or distant light source. This kind of light results in harsh shadows that create deep contrast in images, since the light is more direct and doesn't scatter as much as diffused light. Subjects lit with hard light appear to have sharp, defined edges.

A common example of a hard light situation is a clear, sunny day at noon. Though the sun is actually a very large light source, its distance from the Earth in the middle of the day makes it a small light.

Soft light from a window on a cloudy day evens out skin tones and minimizes shadows.

Soft light comes from a big light source relative to the subject. It is diffused and casts few shadows. This type of light is abundant on cloudy days. Everything is evenly lit because the clouds serve as a giant softbox.

Softboxes are used to make a small light source, such as a strobe, cover more area; the light source is enlarged. The closer the light source is brought to the subject, the larger and softer the light quality will be. This is why light appears softer as the sun gets closer to the horizon.

Quality over quantity is a motto that rings true in photographic lighting. It is, of course, crucial to have enough light, but the quality of light is what lets your photo take on a life of its own.

Though some photographers refuse to shoot in hard light, others use all types of light to their advantage to create a variety of looks in their images.

Light and Emotions (Lighting Objectives)

At the end of the day, there's only one reason why people like good photos. It's a simple concept, really, but it also forms the foundation for all of photography. *Emotion*. For a photo to succeed, it has to resonate with your viewer. That could happen for a number of reasons, ranging from your subject to your composition. But the strongest tool to capture emotion is far more fundamental than that — it is, quite simply, your light.

Light has extraordinary power to create emotions in a photo. Most photographers know that light is important, but it's still something everyone should strive to learn about and improve. If you master light, you master photography. Photography *is* light. Without it, you couldn't take pictures in the first place.

Different qualities of light — brightness, contrast, direction, and so on — all carry their own emotions. A dark, backlit photo with high contrast sends a very different message from a bright, airy forest at sunrise. And in photography, *your light should complement your subject*. If you're trying to photograph an intense and dramatic waterfall, your light should contribute to that mood, not detract from what you're trying to say. The same is true if you're photographing a fun, happy portrait — the lighting should reflect those emotions.

Below, I'll go into the unique emotional impacts carried by different types of light. Although some parts of this are subjective, others are nea

1) Dark light

One of the most emotion-filled types of light is dark, intense lighting. This works well for all sorts of photography: moody portraits, powerful landscapes, and somber documentary work. Dark light is popular across the board, and with good reason.

Quite simply, it's unique. Dark light conceals information from viewers, making a photograph appear mysterious and — depending upon your subject — potentially ominous or refined. You'll see many product photographers capture dark images for high-end advertisements, since, again, it does such a good job of conveying emotions

The emotions of dark light:

- Powerful
- Ominous
- Refined
- Intense
- Somber

2) Bright light

The obvious counterpoint is that *bright light also exists*, and it carries its own set of important emotions. Say that you want to capture an ethereal, airy photograph. Would you rather take pictures under a dramatic storm, or during bright, hazy, late-afternoon sunlight? This shouldn't be a tough question — the afternoon sunlight will give your photo a much softer, airier quality.

The same is true in other cases. For example, maybe you want to capture a happy and optimistic image. If that's your goal, you probably won't go out in search of dim street corners at night. They just wouldn't fit the mood, while a brighter scene might.

Although bright light is pretty common, it's still worth seeking out in many cases. If you're after a certain type of mood — airy, optimistic, or ethereal — bright light will be your bread and butter.

The emotions of bright light:

- Optimistic
- Airy
- Light (the adjective)
- Gentle
- Ethereal

3) High Contrast

Many good photos make use of high contrast — juxtaposing extremely bright and dark regions of the image right next to each other. If you have a dark mountain silhouetted in front of the sky, that's contrast. If you have a bright pond against a dark shoreline, that's contrast.

A lot of people think that contrast is the difference between the brightest and darkest parts of an image. Although that's true to a degree, it isn't the fundamental definition. For example, this gradient contains both white and black, but it has fairly low contrast:

Instead, contrast occurs when bright and dark elements are right next to each other (or elements of different colors, but that's an article for another day). The “contrast” slider in most editing software *does* add to the distance between the brightest and darkest part of an image. But it also makes smaller, side-by-side regions of contrast more punchy.

And that's one of the key words for contrast: *punchy*. As far as emotions go, it's no surprise that high-contrast images draw a lot of attention. They're dramatic, and they stand out from a crowd. That's not always a good thing — it depends upon the image — but it's also why high-contrast images are fairly popular on social media and photography websites right now. Quite simply, it's a good way to get your photo noticed.

You can find contrast by searching for non-diffused light. In other words, a sunny afternoon or an unmodified camera flash will likely result in high-contrast images (although this does depend upon your subject). Personally, for landscape photography, I look for contrast when I'm trying to make a photo pop — cases when the landscape itself is particularly dramatic and intense.

The emotions of high contrast:

- Dramatic
- Loud
- Vibrant
- Punchy
- Sharp

4) Low Contrast

As popular as high-contrast images can be, don't discount the opposite — photos that are low in contrast. Low-contrast images are more muted and subdued. They tend to occur when your light source is heavily diffused (such as an overcast day). It also helps to capture relatively uniform subjects, such as the above photograph of a lupine field.

Often, low-contrast photos won't stand out as much upon first glance. They don't shout for attention. However, if you're after a more subtle look, they work quite well. That's because *successful light* doesn't always need to attract immediate attention; instead, it's the light that matches the character of your subject. If you're photographing a quiet, gentle landscape, or you want a soft mood for a portrait photo, my top recommendation is to search for low-contrast light.

Does that sound like something you're after? If so, add a diffuser to your flash, or move your subject into the shade. For landscape photography, wait until an overcast day, or until the sun has set below the horizon. For many photos, this will be a good way to complement your subject.

The emotions of low contrast:

- Subdued
- Gentle
- Soft
- Quiet
- Muted

5) Direction of light

So far, it should make sense that brightness and contrast strongly impact the emotions of a photo. But what about the direction of light?

There are five primary directions of light:

1. Backlighting
2. Frontlighting
3. Sidelighting (left or right)
4. Overhead lighting
5. Under-lighting

The last one, under-lighting, is relatively unusual, unless you're going for a Halloween look. But the others are fairly common in most types of photography, from street photos to landscapes. On top of that, you might have *multiple* light sources, typically for studio work. Indeed, high-end product photography setups may have more than a dozen different lights. There's really no limit, aside from simple practicality.

But does the direction of light impact your photo's emotion?

The answer is yes. But the specific *way* it affects emotion is hard to generalize, since it depends upon the scene. Sometimes, backlighting will be high-contrast and dramatic. Other times — say, on a foggy day — it could cause the atmosphere to light up with bright, ethereal sunbeams. There's no inherent consistency.

That's even true if you're capturing a portrait under controlled conditions. You can get many different emotions from a single direction of light. For example, are you altering the diffusion of your flash? What about the color of the background, or even the emotion your subject is conveying? All of these factors mean that backlighting or sidelighting — just to name a couple examples— won't always carry the same emotions from photo to photo.

(<https://photographylife.com/landscapes/how-light-creates-emotion-in-photography>)

Types of lighting:

The *Three Point Lighting Technique* is a standard method used in visual media such as video, film, still photography and computer-generated imagery. It is a simple but versatile system which forms the basis of most lighting. Once you understand three point lighting you are well on the way to understanding all lighting.

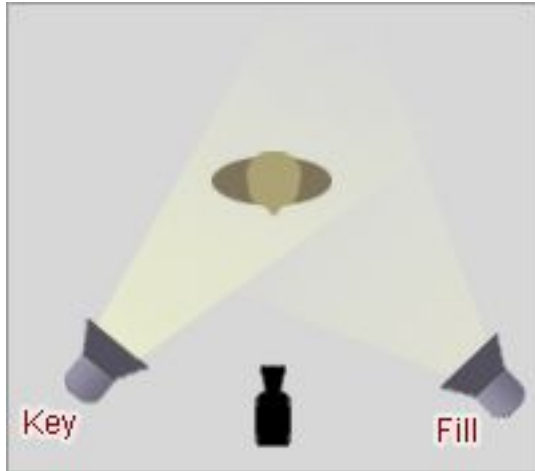
The technique uses three lights called the key light, fill light and back light. Naturally you will need three lights to utilise the technique fully, but the principles are still important even if you only use one or two lights. As a rule:

- If you only have one light, it becomes the key.
- If you have 2 lights, one is the key and the other is either the fill or the backlight.



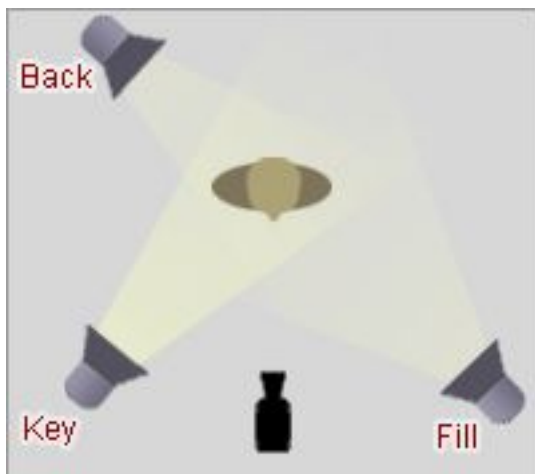
Key Light

This is the main light. It is usually the strongest and has the most influence on the look of the scene. It is placed to one side of the camera/subject so that this side is well lit and the other side has some shadow.



Fill Light

This is the secondary light and is placed on the opposite side of the key light. It is used to fill the shadows created by the key. The fill will usually be softer and less bright than the key. To achieve this, you could move the light further away or use some spun. You might also want to set the fill light to more of a flood than the key.



Back Light

The back light is placed behind the subject and lights it from the rear. Rather than providing direct lighting (like the key and fill), its purpose is to provide definition and subtle highlights

around the subject's outlines. This helps separate the subject from the background and provide a three-dimensional look.

If you have a fourth light, you could use it to light the background of the entire scene.

Lighting Concepts:

High key and Low key:

High Key is a style of lighting that is bright and shadowless with lots of fill light. It was used a lot in the classic Hollywood period in the 1930s and 40s, in particular for comedies and musicals.

Today high key lighting is primarily used for cosmetic commercials, sitcoms, and music videos. Although it does still find its place within modern cinema; see the above image from Harry Potter.

Features:

High key is shadowless.

Often close to overexposure on some areas of the image.

Is usually produced from frontal lighting.

High key will have a low lighting ratio.

Low Key:

An image with low key lighting is predominantly dark and filled with more shadows than light.

There is little or no fill light. Low key focuses on the use of shadows as a character, rather than the subjects in the light itself. It's commonly used throughout horror and thriller films. Check out this article for more on making films dramatic with low key lighting.

Features:

Often will be achieved with just one light.

Low key lighting will have a high lighting ratio.

Low key lighting works better when using a hard light source.

Color Temperature: In short, each light source has its own individual color, or 'color temperature', which varies from red to blue.

Candles, sunsets and tungsten bulbs give off light that's close to red (hence the 'warm' look they give to pictures), whereas clear blue skies give off a 'cool' blue light. It's fairly obvious stuff once you read it.

Color temperature is typically recorded in kelvin, the unit of absolute temperature. Cool colors like blue and white generally have color temperatures over 7000K, while warmer colors like red and orange lie around the 2000K mark.

When you set your camera's white balance manually, you can choose from a number of pre-set color temperature options like Tungsten, Daylight, Cloudy and Shade, or customize your own setting.

Color Temperature	Light Source
1000-2000 K	Candlelight
2500-3500 K	Tungsten Bulb (household variety)
3000-4000 K	Sunrise/Sunset (clear sky)
4000-5000 K	Fluorescent Lamps
5000-5500 K	Electronic Flash
5000-6500 K	Daylight with Clear Sky (sun overhead)
6500-8000 K	Moderately Overcast Sky
9000-10000 K	Shade or Heavily Overcast Sky

White Balance: White balance (WB) is the process of removing unrealistic color casts, so that objects which appear white in person are rendered white in your photo. Proper camera white balance has to take into account the "color temperature" of a light source, which refers to the relative warmth or coolness of white light. Our eyes are very good at judging what is white under different light sources, but digital cameras often have great difficulty with auto white balance (AWB) — and can create unsightly blue, orange, or even green color casts. Understanding digital white balance can help you avoid these color casts, thereby improving your photos under a wider range of lighting conditions.

Composition: In the visual arts, composition is the placement or arrangement of visual elements or 'ingredients' in a work of art, as distinct from the subject. ... The term composition means 'putting together' and can apply to any work of art, from music to writing to photography, that is arranged using conscious thought. In photography, how we put different objects that we want to photograph in a frame is called composition. Rule of thirds is one of the guidelines that photographers use to compose their pictures.

Use of Color in Composition:

Color has four basic characteristics: hue, temperature, value and saturation. Briefly, hue is the color's identity in relation to the color spectrum. The titles blue, green, red, brown identify a color by hue. Technically, color temperature is a subset of hue but for the working artist, it's as important as the other three. Warm colors such as reds, oranges and yellows are associated with heat while cool colors like blues and greens are associated with things that are relatively cold such as ice, snow, sky and water. Value is the lightness or darkness of a color compared to a neutral value scale from black to white with as many middle grays as can be distinguished. Saturation is the purity or intensity of the color. Paint squeezed directly from the tube is of maximum intensity.

Depending upon the Color harmonies used we can create the mood we want in a picture. Colors have their own symbolism so can be used in different contexts to give some specific messages. Read up the analogous and complementary colors.

Rule of Thirds:

The rule of thirds involves mentally dividing up your image using 2 horizontal lines and 2 vertical lines, as shown below. You then position the important elements in your scene along those lines, or at the points where they meet.

The idea is that an off-centre composition is more pleasing to the eye and looks more natural than one where the subject is placed right in the middle of the frame. It also encourages you to make creative use of negative space, the empty areas around your subject.

When framing a photo, think about what elements of the photo are most important, and try to position them at or near the lines and intersections of the grid. They don't have to be perfectly lined up as long as they're close.

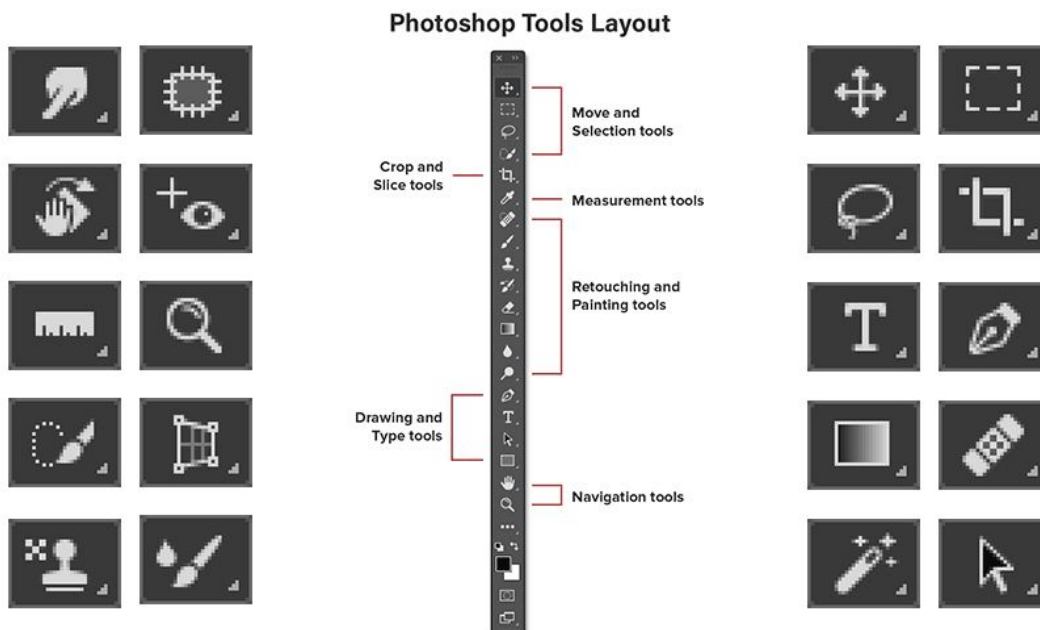
Photoshop:

It is a photo editing software from Adobe. The software provides many image editing features for raster (pixel-based) images as well as vector graphics. It uses a layer-based editing system that enables image creation and altering with multiple overlays that support transparency. Layers can also act as masks or filters, altering underlying colors. Shadows and other effects can be added to the layers. Photoshop actions include automation features to reduce the need for repetitive tasks.

Please refer to a detailed tutorial here:

<https://itconnect.uw.edu/learn/workshops/online-tutorials/graphics-and-design-workshops/adobe-cs/photoshop/>

Tools:



Pixel and Megapixel:

A pixel is a tiny dot or square of color that is part of a digital image. A digital image (picture) consists of millions of these pixels or picture elements in different colors and different color intensities. The word Pixel is a twist on the words "picture" and "element" combined.

Megapixels are simply pixels expressed in millions. There are one million pixels in a megapixel.

Pixels are created when the light that flows through the camera lens is captured into a device inside the camera called the sensor. The image sensor has millions of light capturing wells or cavities called photosites. Each of these photosites have specific locations and are arranged in rows and columns similar to a spreadsheet.

The information about the qualities of the light captured in each of these photosites is recorded and transferred to the camera memory. When the information is reproduced, the pixels are shown as continuous varying tones and colors that we view as the final image or "picture".

Each pixel has information about the color and intensity of the light gathered at its location. (or photosite) The more information about the qualities of the light that can be captured by the camera's image sensor, the better the quality of the final image. The information about the pixel density and other digital information about the image is known as the image resolution.

Resolution: Resolution refers to the number of pixels in an image. Resolution is sometimes identified by the width and height of the image as well as the total number of pixels in the image. For example, an image that is 2048 pixels wide and 1536 pixels high (2048 x 1536) contains (multiply) 3,145,728 pixels (or 3.1 Megapixels). You could call it a 2048 x 1536 or a 3.1 Megapixel image. As the megapixels in the pickup device in your camera increase so does the possible maximum size image you can produce. This means that a 5 megapixel camera is capable of capturing a larger image than a 3 megapixel camera.

History of Photography

https://m.facebook.com/story.php?story_fbid=10156568233463470&id=274411818469

Types of shutters

Leaf shutter <https://improvephotography.com/44427/what-is-a-leaf-shutter/>

Focal Plane Shutter

<https://improvephotography.com/44172/focal-plane-shutter-affects-photos/>

<https://www.red.com/red-101/global-rolling-shutter>