



Video and photography Tech for Education

PROGRAM OF THE ONE WEEK COURSE

euro pass Erasmus+ Programme

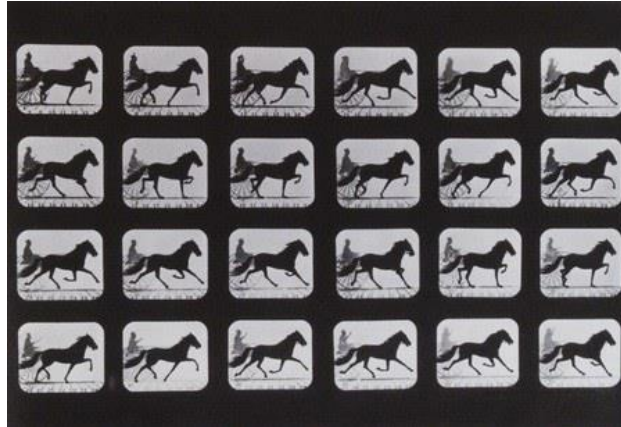
COURSE NAME
LOCATION - DATES

Erasmus+

Proposed course schedule

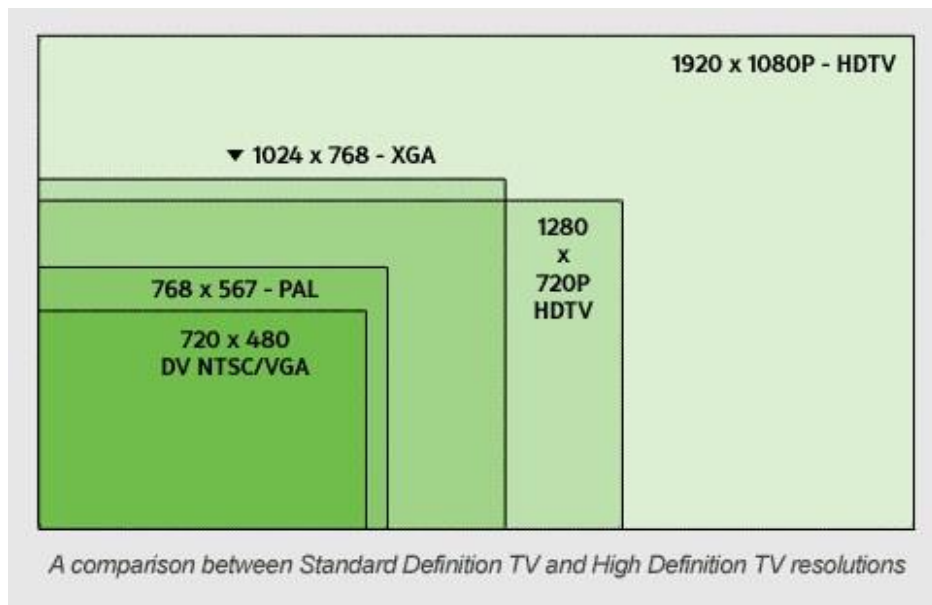
Day/Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9:30 – 10:30	Introduce yourself, your school, your students and the experience.	What's a video? (format video/phone/web)	Script analysis and techniques to bring life to your video.	Editing	Overview of Da Vinci Resolve	Full Day Duration
	Break	Break	Break	Break	Break	
10:45 – 12:15	Introduce yourself, your school, your students and the experience.	Recording techniques.	Video Platforms and YouTube.	Introduction to photo and video editing.	Edit your video.	
	Break	Break	Break	Break	Break	
12:30 – 14:00	Video and photography skills test.	Image composition.	OSD and the streaming of your lessons.	Da Vinci-Resolve download and installation settings.	Finals and upload.	
	Free time activities	Free time activities	Free time activities	Free time activities		

WHAT IS A VIDEO?



-
- *A video is a sequence of images processed electronically into an analog or digital format, and displayed on a screen with enough rapidity to create an illusion of motion.*
 - *Video is what's on TV, football matches and TV shows; is a movie, is news reporting, everyday from all over the world.*
 - *Our mentality is connected with videos everyday in many moments of our day. We do not believe till we see it.*
-

VIDEO FORMATS



FRAME RATE

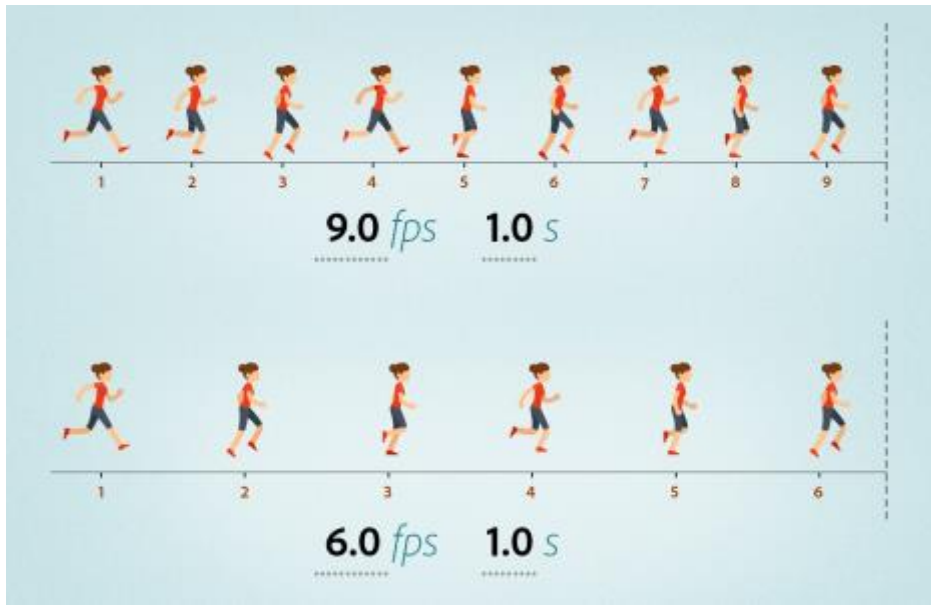
Every frame is an interval of time, in which the camera sensor, gets hit by the light. After that time passed, a photo-gram is create. Frame rate is the number of photo-grams created in a second.



1 - 30 fps image

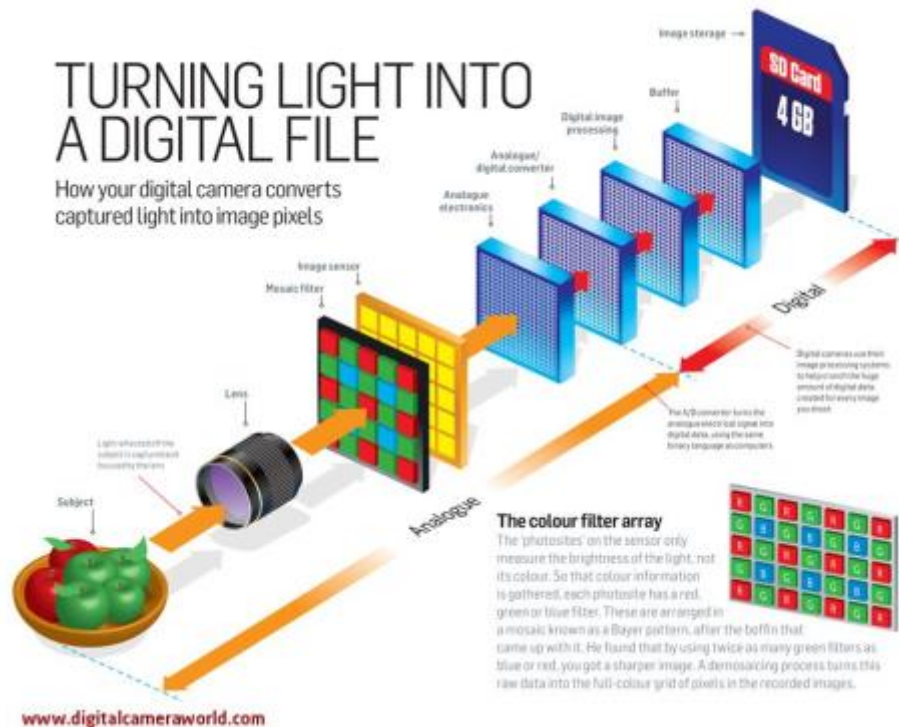


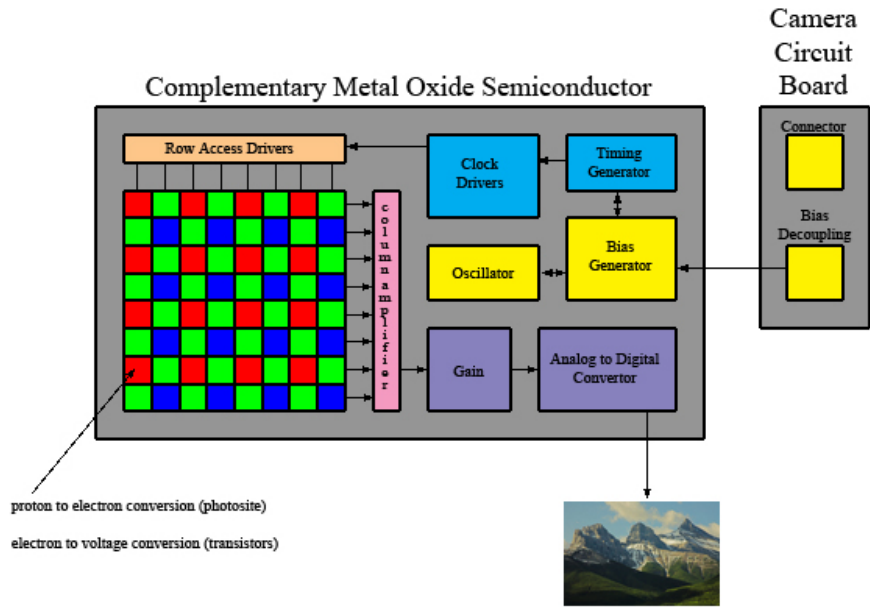
2 - 60 fps image



3 - Each frame corresponds to a part of the movement. All the frames together create the illusion of motion.

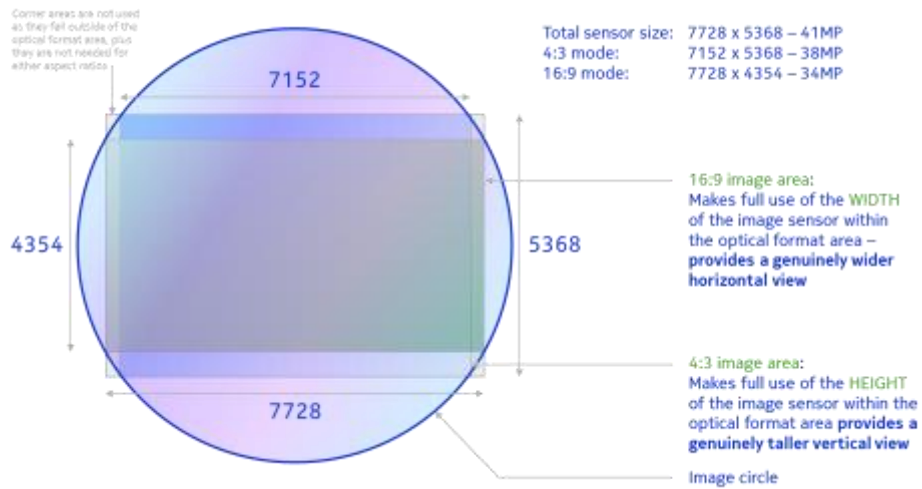
HOW A VIDEO CAMERA IS MADE? HOW IT WORKS?





4 - CMOS Sensor

16:9 OR 4:3

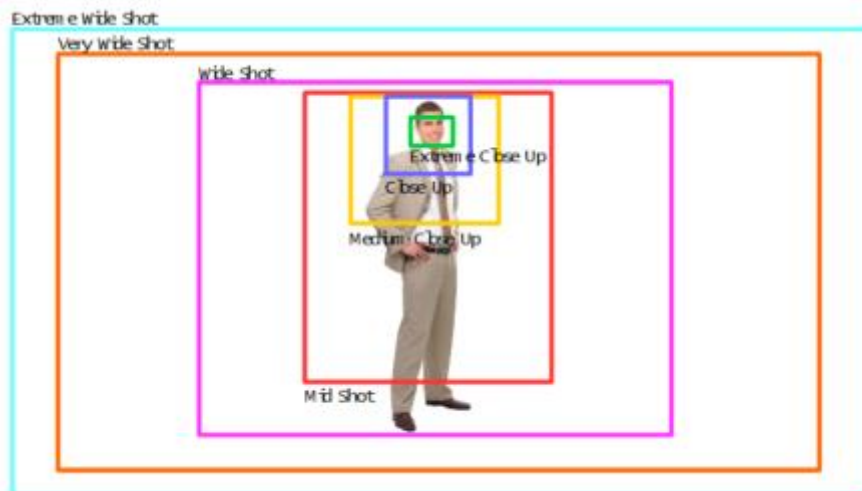


HDMI cable (High-Definition Multimedia Interface)



5 - A digital interface for AUDIO and VIDEO, that provides a single-cable solution for electronics equipments: TV, Console, Laptop, video camera and many other devices. Introduced in 2002, one HDMI cable took the place of nine different analogue audio and video cables. It is now considered a standard for connections between multimedia tools.

RECORDING TECHNIQUES



6 - DIFFERENT TYPE OF SHOTS

WIDE SHOTS



7 - EWS(Extreme Wide Shot): The view is so far from the subject that he/it/she isn't even visible. Often used as an establishing shot.



8 - VWS (Very Wide Shot): The subject is visible (barely), but the emphasis is still on placing him in his environment.



9 - WS (Wide Shot): The subject takes up the full frame, or at least as much as comfortably possible. (long shot, full shot)

MEDIUM SHOTS



10 - MS (Mid Shot): Shows some part of the subject in more detail while still giving an impression of the whole subject.



11 - American Shot : from knees up.



12 - MCU (Medium Close Up): Half way between a MS and a CU. From the belly button up.

CLOSE UP SHOTS



13 - CU (Close Up): A certain feature or part of the subject takes up the whole frame.



14 - ECU (Extreme Close UP): The ECU gets right in and shows extreme detail. Usually the subject's face from just above the eyebrows to just below the mouth.

TRANSITIONS SHOTS



<https://sway.office.com/Wwcl6R3YwNUyRdFI#content=O676DSAueUABz6>

15 - CUT IN ACTION: Shows some part of the subject in an extreme close up way.



<https://sway.office.com/Wwcl6R3YwNUyRdFI#content=Blr55rBwDIDNu5>

16 - CA (Cut Away): A shot of something other than the subject.



<https://sway.office.com/Wwcl6R3YwNUyRdFI#content=Noa9IzC2PO8HmZ>

17 - Noddy Shot: Usually refers to a shot of the interviewer listening and reacting to the subject. Used to express emotions or feelings of subject.



<https://sway.office.com/Wwcl6R3YwNUyRdFI#content=nlcIEJqYb98duR>

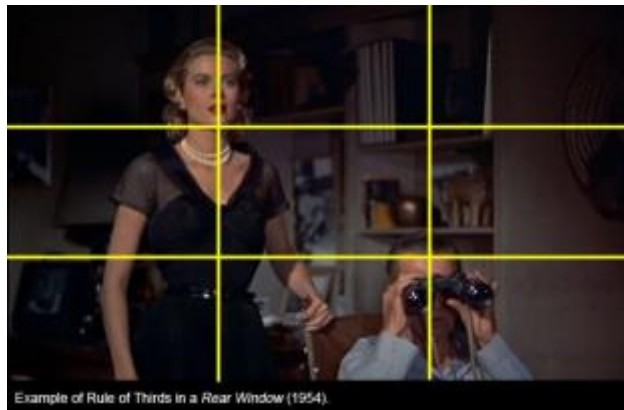
18 - OSS (Over Shoulder Shot): Looking from behind a person at the subject.



<https://sway.office.com/Wwcl6R3YwNUyRdFI#content=IsGdlIRW9C5JXu>

19 - POV (Point Of View): Shows a view from the subject's perspective.

RULE OF THE THIRD



The rule of thirds is a concept in video and film production in which the frame is divided into into nine imaginary sections, as illustrated on the right. This creates reference points which act as guides for framing the image. Points (or lines) of interest should occur at $1/3$ or $2/3$ of the way up (or across) the frame, rather than in the centre. Like many rules of framing, this is not always necessary (or desirable) but it is one of those rules you should understand well before you break it.

CAMERA ANGLE



20 - Eyes Level: This is the most common view, being the real-world angle that we are all used to. It shows subjects as we would expect to see them in real life. It is a fairly neutral shot.



21 - High Angle: A high angle shows the subject from above, the camera is angled down towards the subject. This has the effect of diminishing the subject, making them appear less powerful. It also been used in many photos today because it makes the subject look more appealing.



22 - Low Angle: This shows the subject from below, giving them the impression of being more powerful or dominant.



23 - Bird's eye: The scene is shown from directly above. This is a completely different and somewhat unnatural point of view which can be used for dramatic effect or for showing a different spatial perspective. In drama it can be used to show the positions and motions of different characters and objects, enabling the viewer to see things the characters can't.



24 - Slanted/Dutch tilt: Also known as a dutch tilt, this is where the camera is purposely tilted to one side so the horizon is on an angle. This creates an interesting and dramatic effect.

WRITING A SCRIPT



TURN IDEAS INTO STORIES:

START FROM THE END



IDENTIFY YOUR GOAL



IMAGE THE RESULT



DESIGN FOR THE OUTCOME

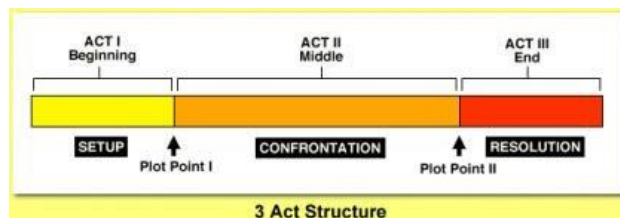


SET UP - PAY OFF

Stories are complex webs of interlocking setups and payoffs. Everything in your story is a setup or a payoff or both. This is also a really good technique to find holes in your story. Everything is set up needs a payoff and every payoff needs a set up explanation.



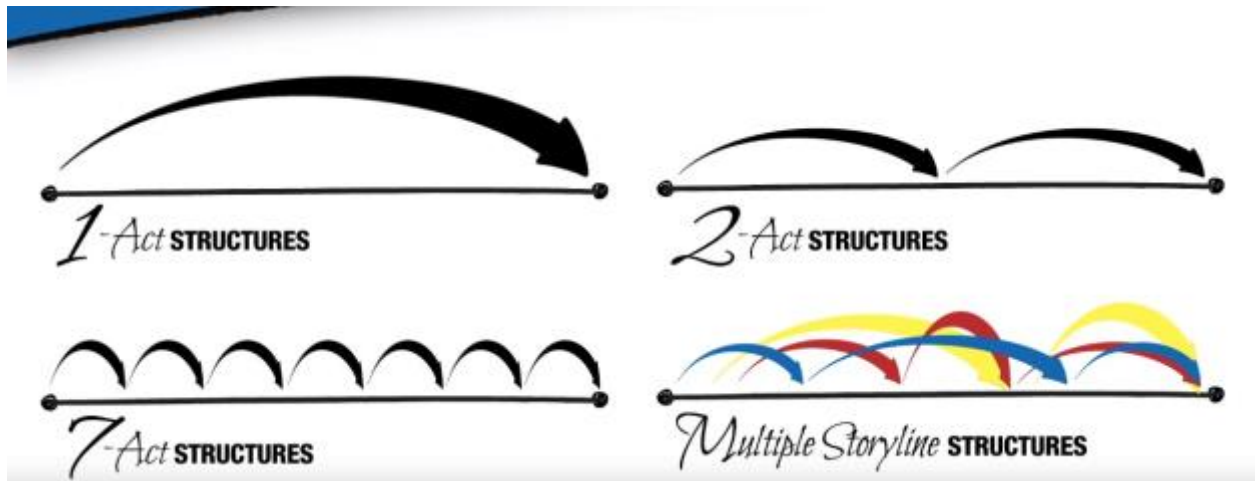
Our main character live “a normal/standard situation”. Suddenly something happen, a situation is triggered. Our character normal situation is diverted on an other direction, on another path; going through this triggering situation gives to him/her/character, and to our story, a meaning, a goal that he/she will try to pursuit to the end.



SET UP: establishes the content, the situation, the character story.



PAYOFF: spins the situation, the content, the character story. Could also offer something unexpected or ties things together.



STORIES



-
1. *Gather your ideas and find the one that really suite you. Clear it to its essence.*
 2. *Shape it in to a story. Find out your STORYDRIVER and who or what could be the most effective OPPOSITEFORCE to it.*
 3. *Create obstacles and challenges over time on the way of your story driver.*
 4. *The challenge of going through all these obstacles will change your story driver situation.*
-

NEVER FORGET THE PURPOSE OF YOUR STORY:



-
1. *Everything has to serve the outcome of your story. If you consider the purpose of the story as a PAYOFF you just need to SET UP a story to get there.*
 2. *Get everything on the paper: it is really important to keep up with your "writing appointment". Authors have to train with writing, like musician train with the instruments.*
-

VIDEO PLATFORM

An online video platform (OVP) is a service that enables users to upload, convert, store and play back video content on the Internet.

NETFLIX



TWITCH



Twitch is a live streaming video platform owned by Twitch Interactive, a subsidiary of Amazon.com. Introduced in June 2011 as a spin-off of the general-interest streaming platform, Justin.tv, the site primarily focuses on video game live streaming, including broadcasts of eSports competitions, in addition to creative content, "real life" streams, and more recently, music broadcasts. Content on the site can either be viewed live or via video on demand.

In 2015, Twitch announced it had more than 1.5 million broadcasters and 100 million visitors per month. Twitch still remains the leading live streaming video service for video games in the US, and has an advantage over YouTube Gaming.

- Twitch game play is a type of video game play scenario that tests a player's reaction time. Action games such as shooters, sports and fighting games often contain elements of twitch gameplay. For example,

first-person shooters such as Counter-Strike as well as Call of Duty shooters require quick reaction times for the players to shoot enemies, and fighting games such as Street Fighter require quick reaction times to attack or counter an opponent. Other video game genres may also involve twitch gameplay. For example, the puzzle video game Tetris gradually speeds up as the player makes progress.

VIMEO



Vimeo is a video-sharing website in which users can upload, share and view videos. It was the first video sharing site to support high-definition video (started in October 2007). Vimeo was founded in November 2004 by Jake Lodwick and Zach Klein. The name Vimeo was created by Lodwick, as a play on the words video and me. Vimeo is also an anagram of the word movie.

FACEBOOK



YOUTUBE



YouTube started as a venture capital-funded technology start-up, primarily from an \$11.5 million investment by Sequoia Capital between November 2005 and April 2006. YouTube early headquarters were situated above a pizzeria and Japanese restaurant in San Mateo, California.

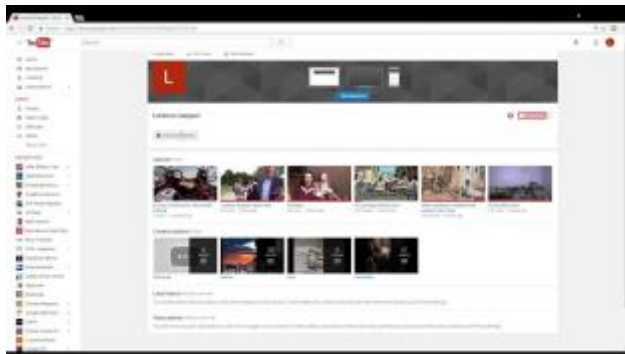
The domain name "www.youtube.com" was activated on February 14, 2005, and the website was developed over the subsequent months. The first YouTube video, titled "Me at the zoo", shows co-founder Jawed Karim at the San Diego Zoo and was uploaded on April 23, 2005.



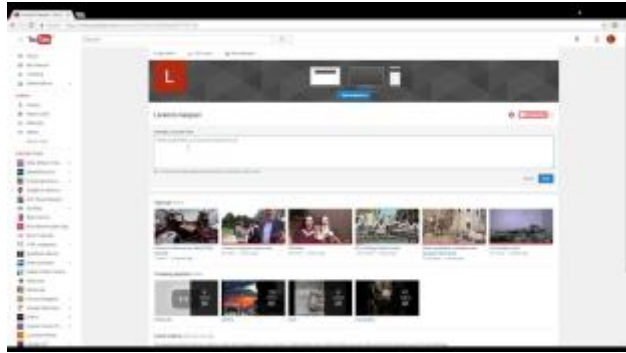
25 - "Me at the zoo" is the first video ever uploaded on YouTube.



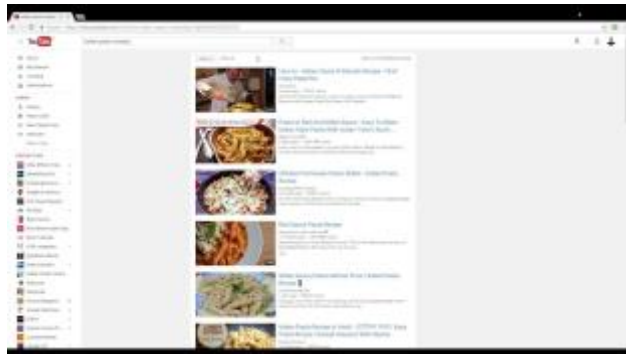
26 - The first video to reach one million views was a Nike advertisement featuring Ronaldinho in November 2005.



27 - Access your YouTube Channel.



28 - Add description to your YouTube account.



29 - Filter your research on YouTube.



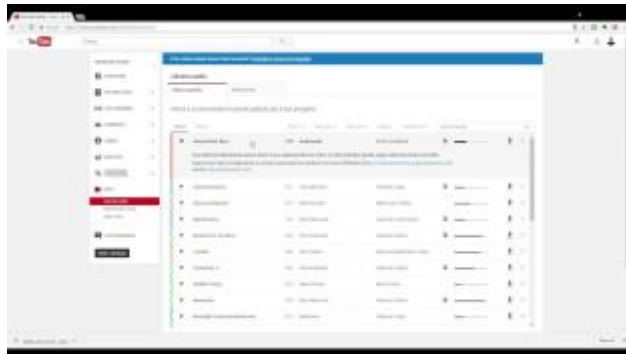
30 - Subscribe to a channel on YouTube.



31 - Subscribe to a channel on YouTube - through channel listing.



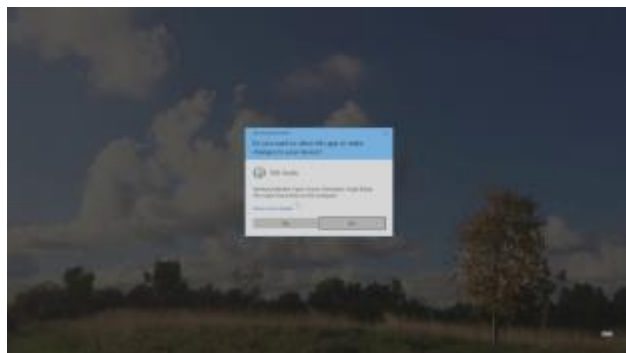
32 - Create, rename and delete playlist on YouTube.



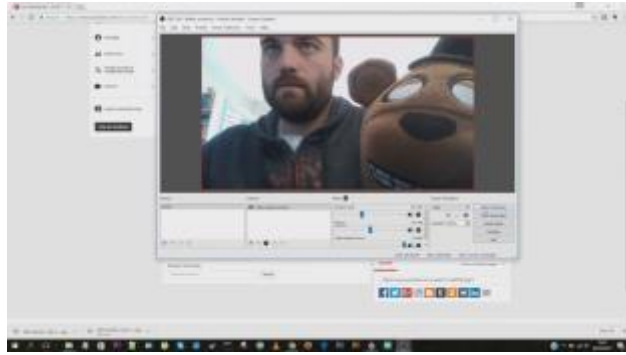
33 - Download free music from YouTube.

LIVE STREAMING FROM YOUTUBE

You **Tube**
Live



34 - Download and install Open Broadcaster Software.



35 - First YouTube Streaming with Open Broadcaster.

In every day life communication requires a speaker and a listener. Streaming video, data, media, phone calls, requires someone whom communicate a message and somebody that acquire that message.

Record mode on, integrated or connected to a laptop camera, software to codify the message. This setup that allow you to stream video and audio (the message) to somebody that is receiving them LIVE, on his/her device/s or on a video platform.

WHY STREAMING IS USEFUL?

1. *Is very innovative and close to students culture.*
 2. *You can ask and answer questions directly.*
 3. *You can reach everybody everywhere.*
 4. *You can show things in progress, demonstrate.*
 5. *You can save in playlist your lesson, having all of them to your disposition always, everywhere.*
 6. *Check what you say.*
 7. *Is a mirror of your "teaching style".*
-
-

WHAT CAN YOU STREAM?

-
1. *Sports activities / events i.e. football matches.*
 2. *Part of a lesson (clarification and reminders).*
 3. *A teacher demonstration i.e. shading in art.*
 4. *A pupil demonstration i.e. drama work.*
 5. *An assembly. A school performance.*
 6. *A whole school event i.e. World Maths Day.*
-

CAPTURE CARD

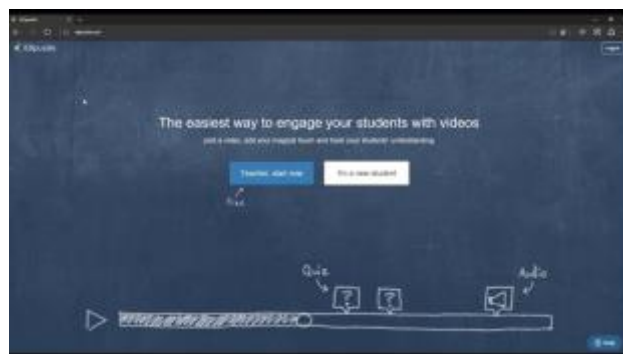


An expansion card that provides inputs and outputs for analog and digital video. It is used to link video cameras, camcorders and tape decks to the computer for editing. Analog video inputs are converted to digital RGB color spaces for processing and converted back to analog formats for analog destinations.

VIDEO SOFTWARE AND PLATFORMS



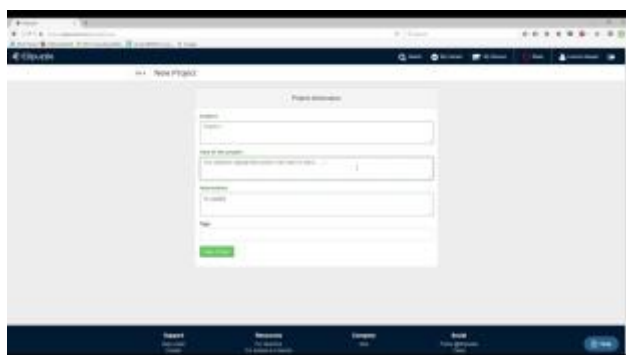
Edpuzzle



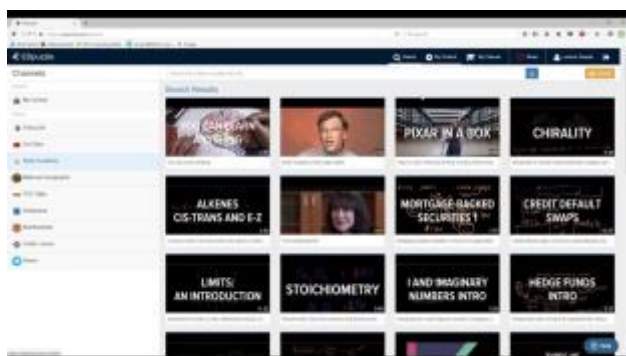
36 - Intro Edpuzzle: overview on the platform.



37 - Edpuzzle: How to create a class.



38 - Edpuzzle: How to create a project in which the students has to prepare a videoquiz.



39 - Edpuzzle: assign a project to a class.

Khan Academy



WHAT IS KHAN ACADEMY?

Khan Academy is a something that can radically change the way we see education; many already noticed this while others have still not yet had the occasion. Khan Academy is not a social media and it is not a web platform. It's a free web based digital school, with more than 2 million users a month that watch many more videos and do even more exercises. Khan academy is open and free for all the people in the world: for students that want to recap something, for those who want to make progress, for students

who don't have the opportunity to go to school and be students, for adults who wants to improve or learn something they forgot and for many others.

The all Khan Academy idea is based on the flipped classroom: as homework students gets to listen or read the lecture, the lesson; in class they do exercises, they discuss what they read. Basically what used to be homework became know lesson and the other way around.

This is the secret of its success because as Salman Khan says "The worst time to learn something, is when somebody is standing over your shoulder going "Do you get it?"".

WHY KHAN ACADEMY?

- Solve the problem of teaching to the average student level in the classroom. One of the biggest difficulties in teaching is that we often (almost always) within a class we have students that works and learn at different levels. Khan Academy could be implement in the classroom as a powerful tool to support teachers works. Students will be able to learn and advance in different subjects at their own pace.
- The concept of average student won't be the same anymore. Khan Academy is also based on what we call the mastery-based learning. When the students are doing exercises on the website the platform request them to master each level before advance to the next one. This method is incredibly powerful because it leaves no hole in the learning path of the students. Maybe sometimes you will get stuck on some topics, but ones you learned them and mastered it probably you will be flying through the other ones. When we have holes in our learning is more difficult to keep up with more difficult lessons probably connected to what we are missing.
- Private tutoring for student can be difficult because of the expensive cost of it. Khan Academy is a private tutor that everybody can afford because it is free.
- It can be useful for students of every age. Nurse exams and other job exams preparations requires skill in Math and Science that maybe a students did not have the chance to learn or what he learned is now outdated. Going again to school can be shameful or not possible for an adults. With Khan Academy platform you can learn and update your knowledge for free and on your own.
- Students will be awarded with badges like in a game. The more badges they get the more high they will be ranked. This creates an environment of healthy competition to be a better student.
- The Khan Academy system provides an advanced learning analytics support (considering the previously introduced broad definition of learning analytics). Some of the included feature s are related to the skill progress, the exercise report, or the student activity reports. Also the learning analytics module has individual visualizations so that students can access their own information. Another type of individual visualization allows students to know their time distribution for the different skills or videos (shown as a percentage).