### **Spectacolo Project**

Live Streaming Workshop



## What is Live Streaming?

This technology lets you watch, create and share videos in real time, a bit like live TV. All you need to be able to live stream is an internet enabled device, like a smart phone, tablet, laptop or desktop, and a platform (such as Instagram/Youtube/Twitch...) to live stream from.

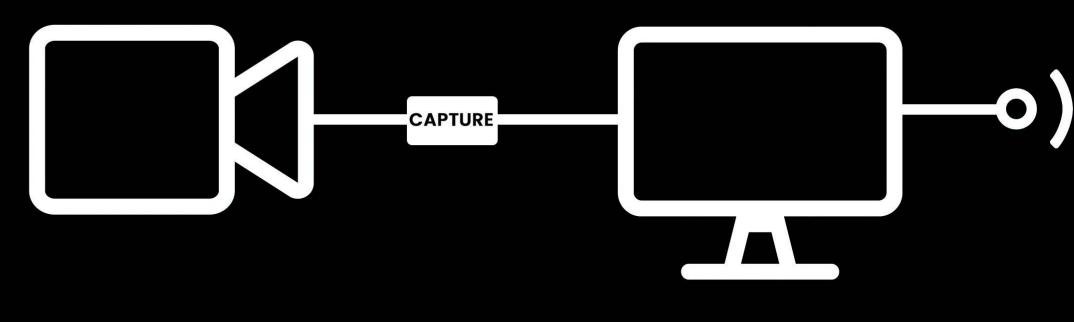


### Lesson 01

What is Live Streaming? 2 Live Streaming Diagram 3 Connection test / bandwidth test 4 Youtube platform tutorial 5 Preparation on location (Camera Setup) 6 Examples (Uganda Akatuuti / Life of Pi) 7 Principles of Videography 8 Introduction to OBS



### Live Streaming Diagram



### 1. Video camera

#### 2. Computer

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# 

### 3. Broadcast



### **Bandwith Test**

### Your Internet speed is





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## eed is Mbps

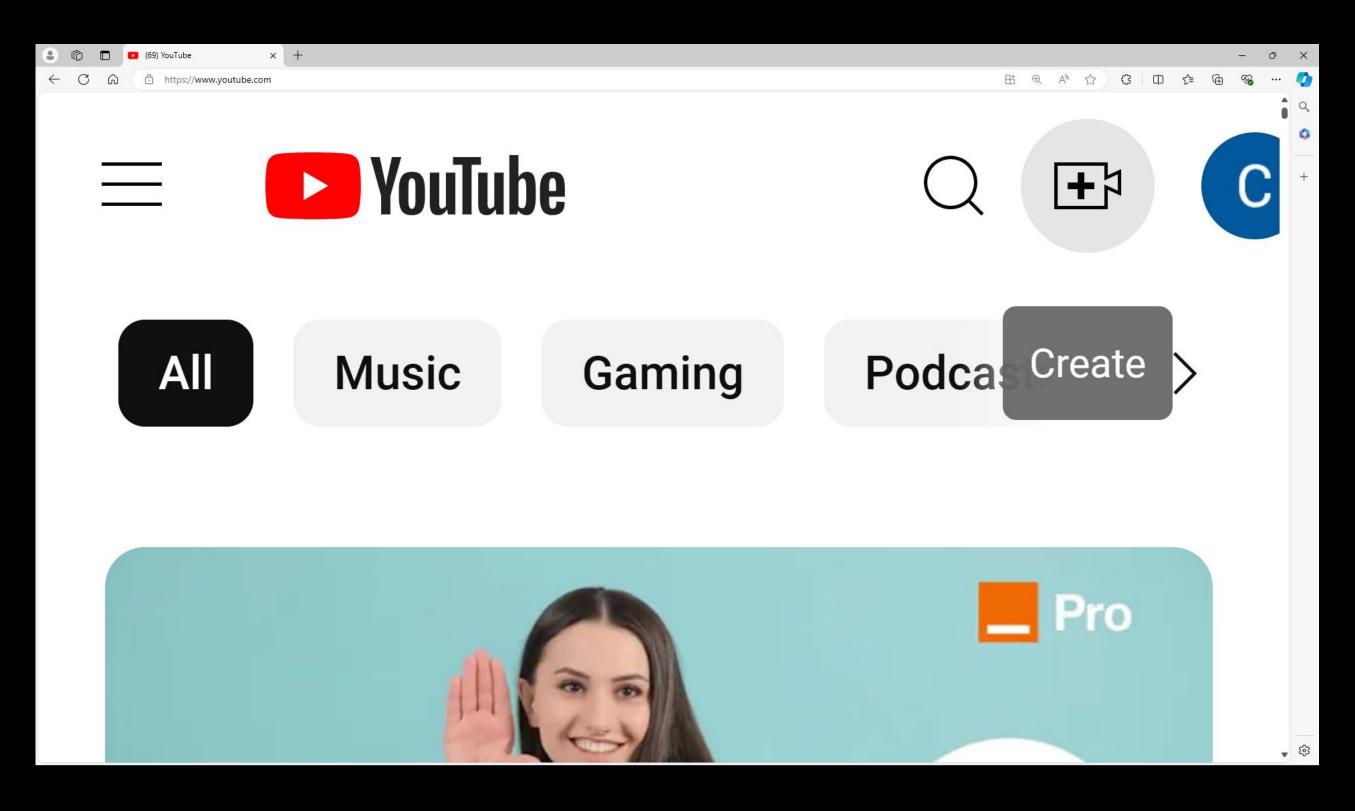
#### Upload

Speed



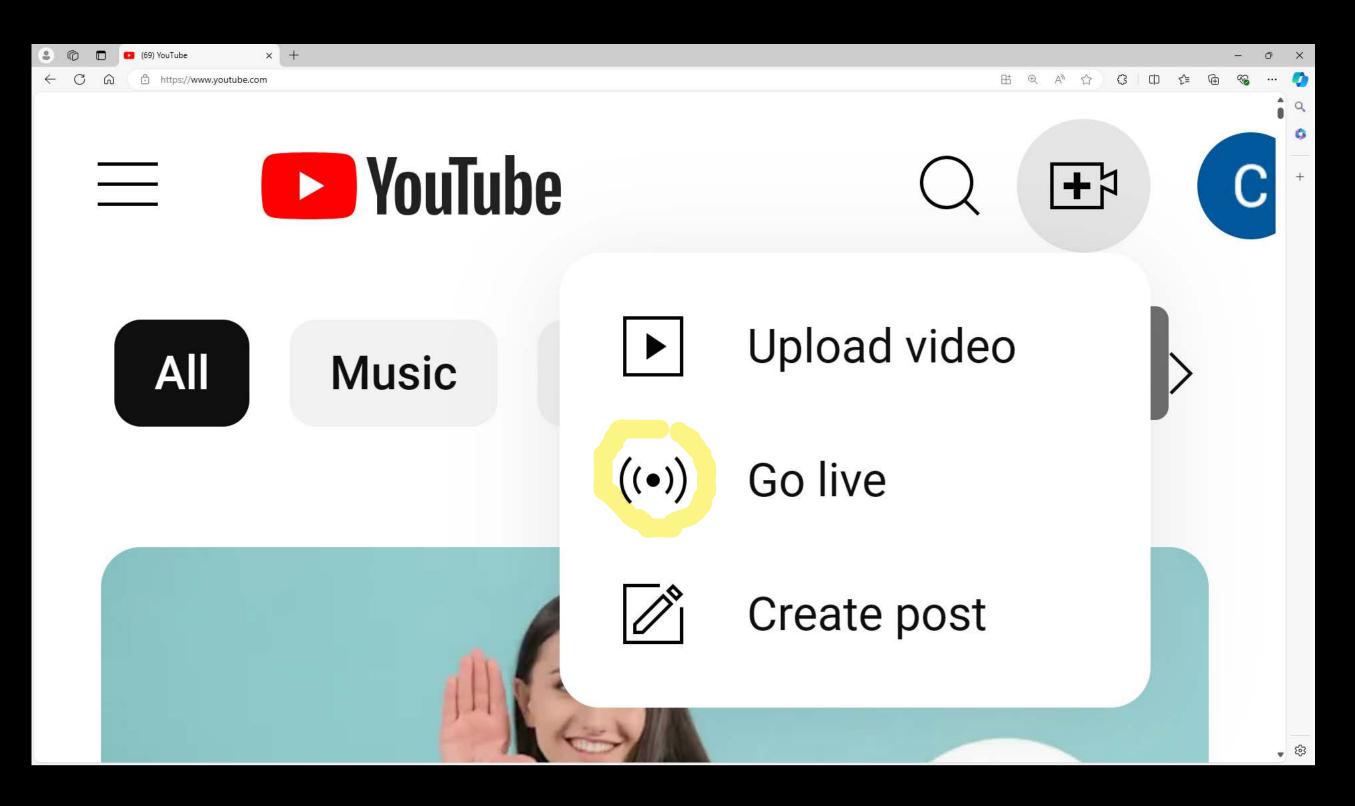


### Streaming on youtube





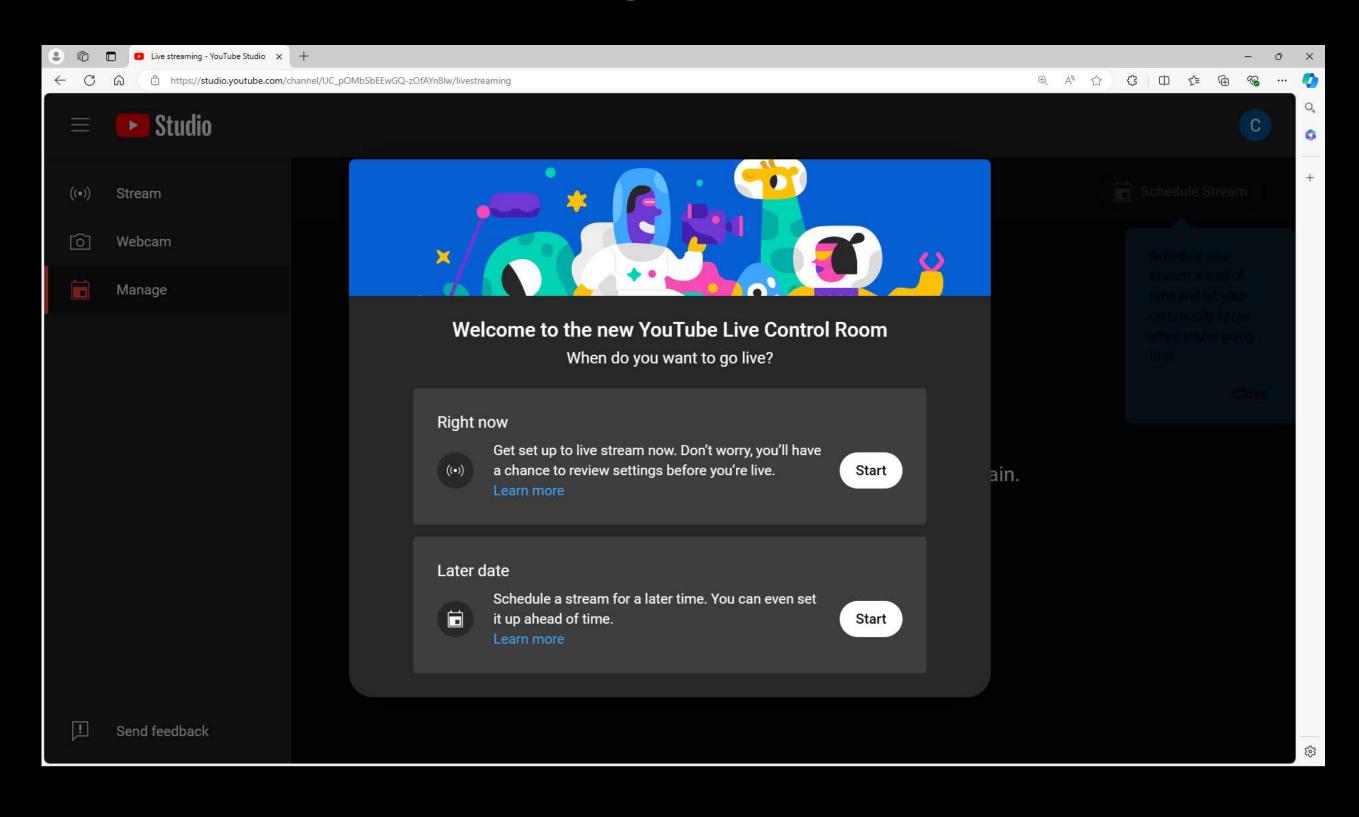
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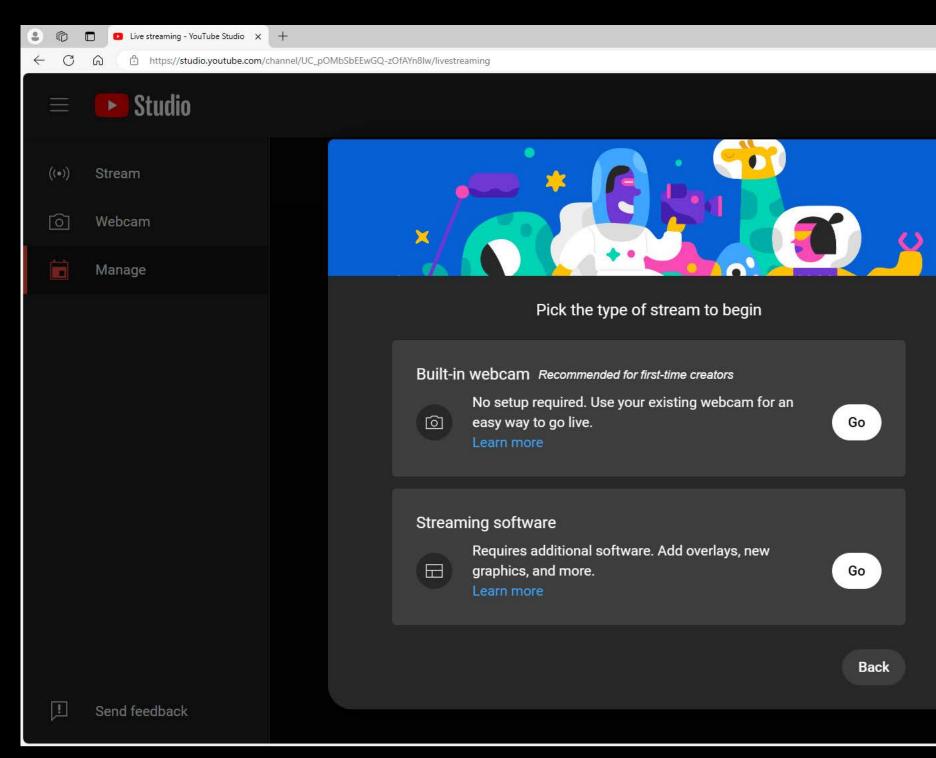


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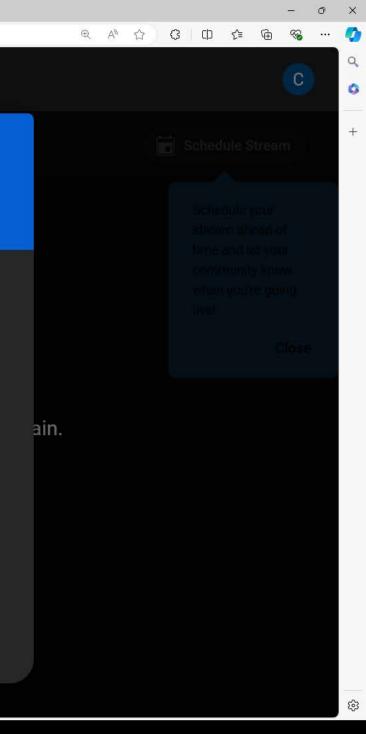




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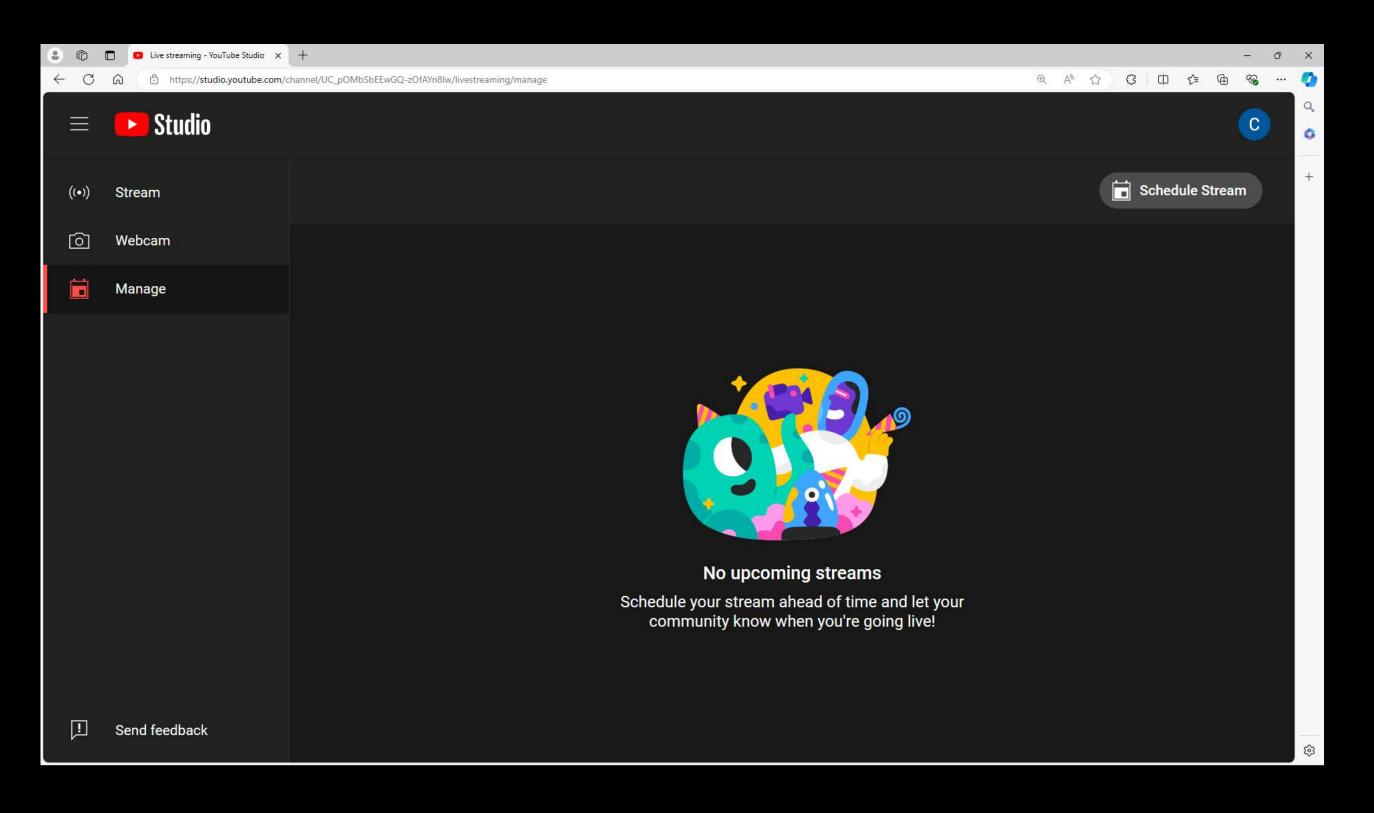


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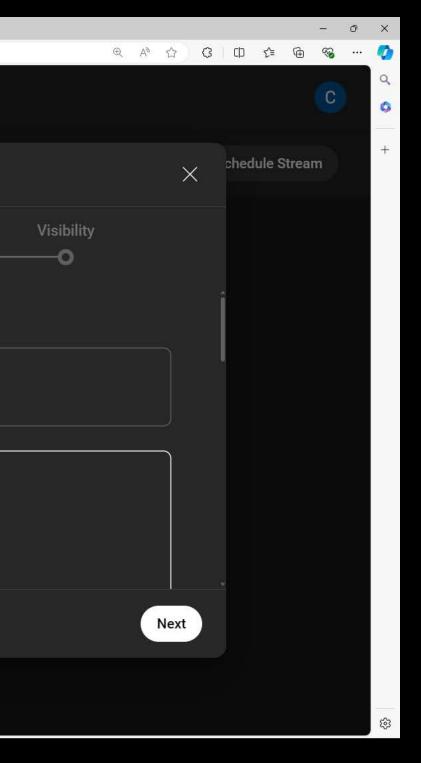
### Streaming on youtube





### Streaming on youtube

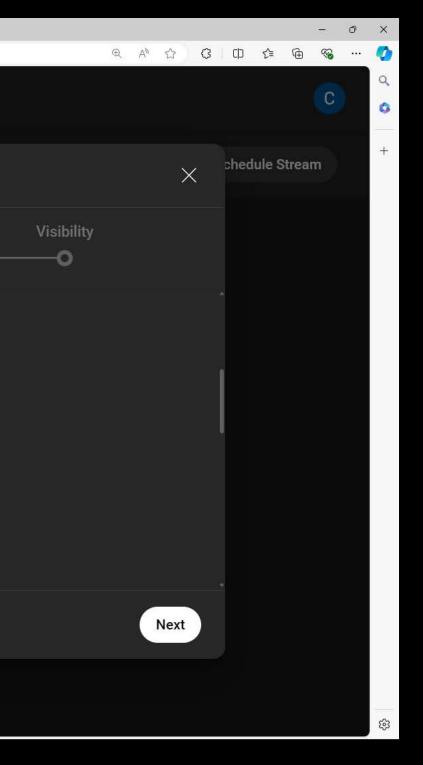
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### Streaming on youtube

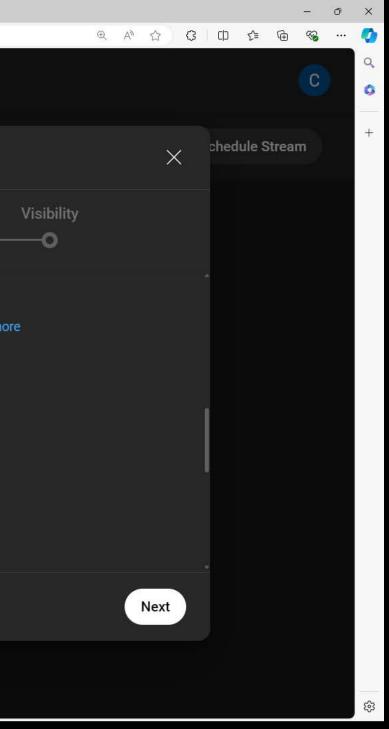
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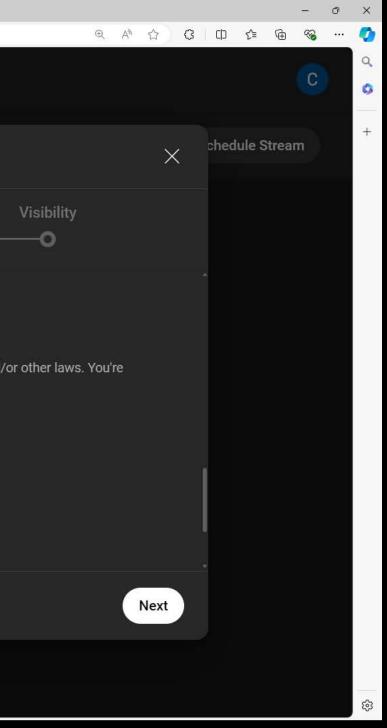
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### Streaming on youtube

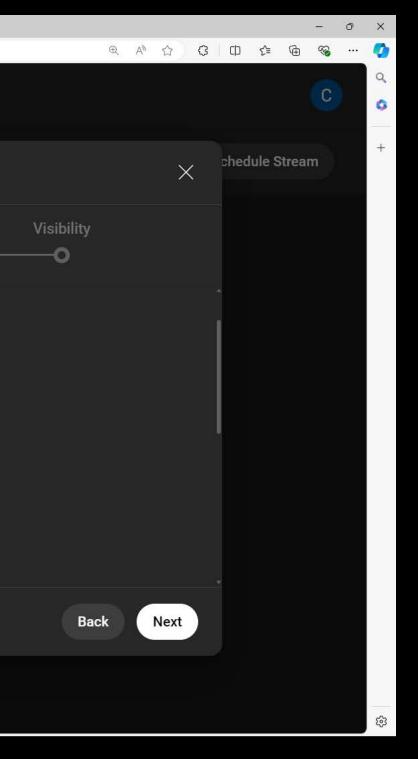
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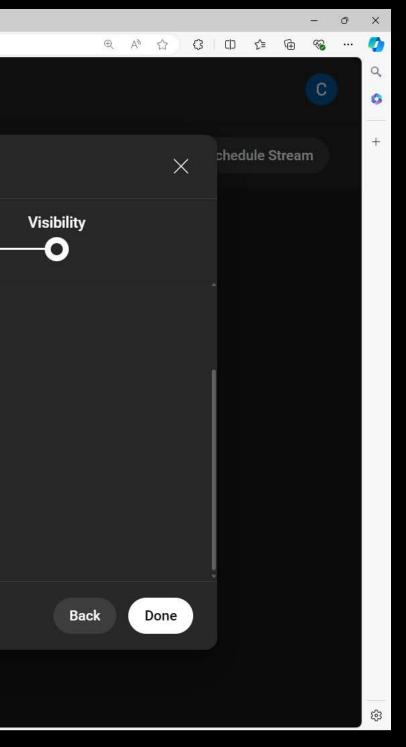
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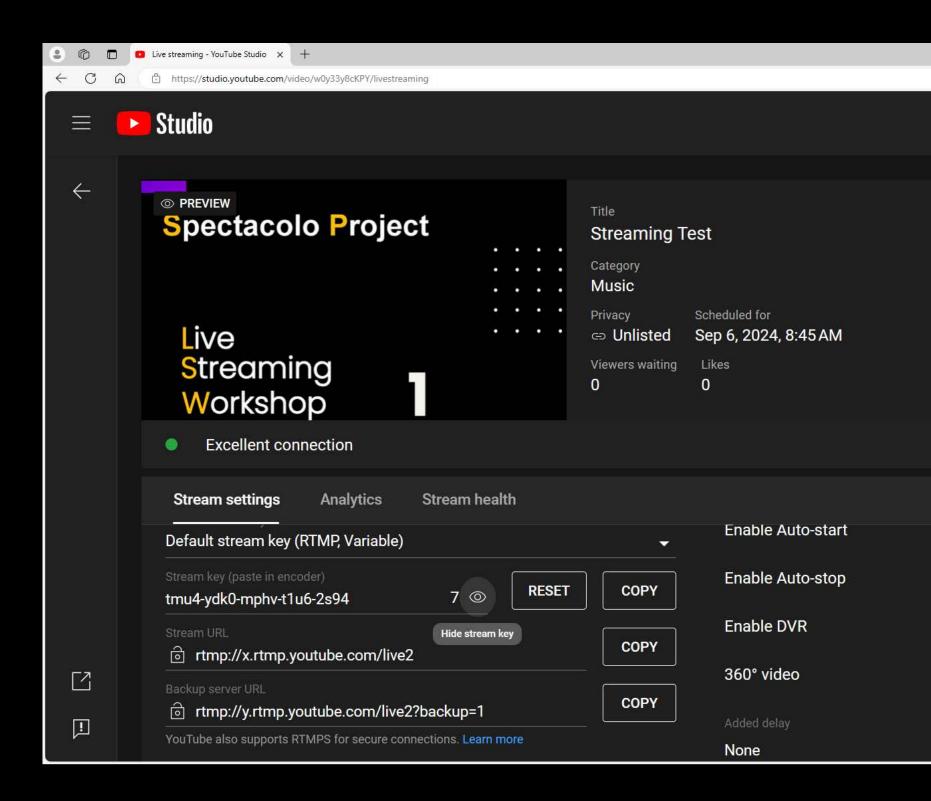
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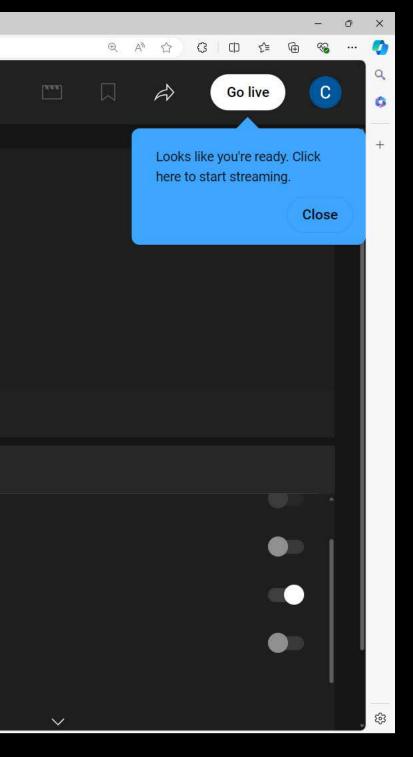
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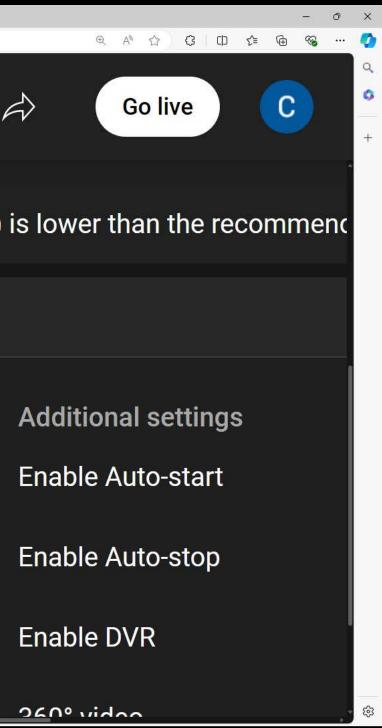






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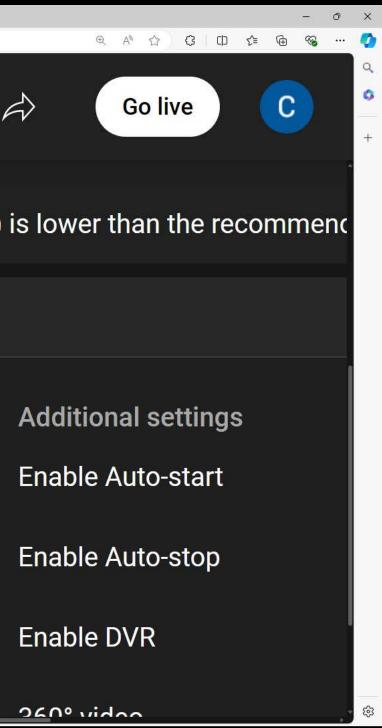
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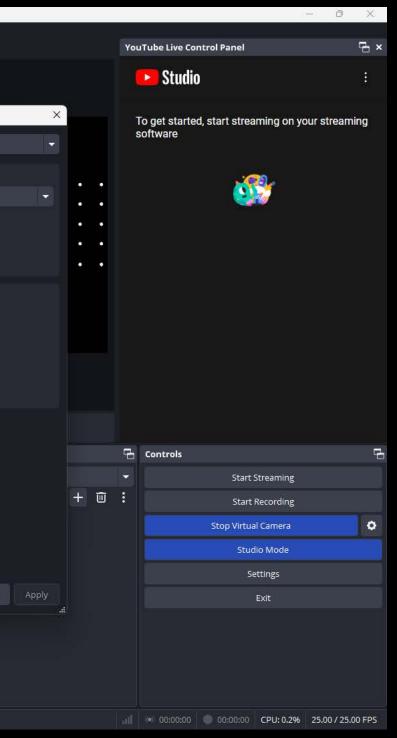
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## Copy your stream Key inside OBS

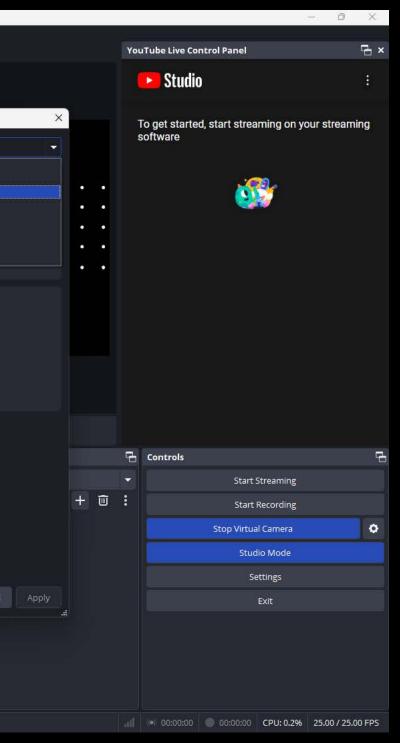
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## Copy your stream Key inside OBS

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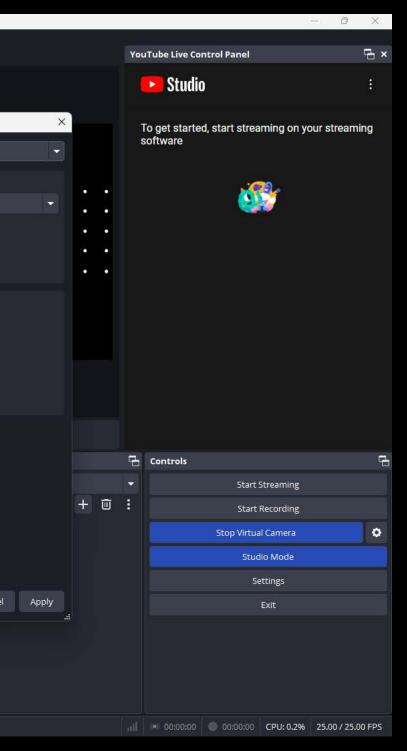
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## Copy your stream Key inside OBS

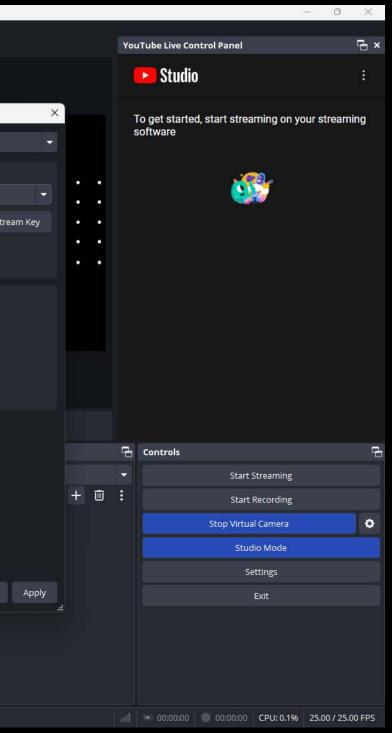
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## Preparation on location (Camera Setup)

### Left Mid/close

### **Right Mid/close**

Main Wide Cam

3 Camera Setup



## **Principles of Videography**

### **Frame Rate**

Frame rate describes the number of frames, or images, that are displayed per second of video. The human eye can detect jumps in anything below about 15 frames per second, but every video standard is well above this number. The NTSC standard frame rate, for instance, shows 29.97 frames every second.

In Europe and Africa we will be using 25 Fps





## **Principles of Videography**

### Resolution

Great strides have been made in the realm of resolution. When you pop in a standard definition DVD and sit down to watch, you're looking at video that is 720\*480, or 720 pixels wide by 480 pixels high, which is a total of 345,600 pixels. High-definition video starts at the 720p standard and goes up from there. 720p is 1280×720, or 921,600 pixels of resolution. There is also 1080p and 1080i, and most of cameras nowadays can record and broadcast up to 3840 \* 2160 (Ultra HD) In most situations we can stream in 1920 \* 1080 pixels resolution Full HS





### **Principles of Videography**

## **ISO Sensitivity**

### From iso 100 for a scene with a lot of light to 1600 and more for a scene with low light





### Principles of Videography

### Aperture

## Influence the amount of light coming through the lens. The lower the number ie F1 the more light coming in.





### **Principles of Videography**

### Shutter Speed

1/50 is preferred when broadcasting in 25p You need to double the number according to the framerate. If you broadcast in 50p your shutter speed should be 1/100





### **Principles of Videography**

### White Balance

### Influences the color rendition. Preferably set it in Kelvin, Interiors 4200K exteriors 5400k.





OBS is the software we will be studying throughout the lessons. It enable its users to encode our broadcast so as to be able to stream it on a social media platform.

This software acts like a virtual mixer and can be installed on a desktop or a laptop. Just like a professional mixer it gives the possibilities to 'switch' from one source (a webcam, a camera, a picture, a video...) to another source. With this software you can as well record the entire broadcast on your harddisk.



#### 1. Run the Auto-Configuration Wizard

S Auto-Configuration Wizard		X							
<b>Usage Information</b> Specify what you want to use the progr	am for								
<ul> <li>Optimize for streaming, recording is sec</li> <li>Optimize just for recording, I will not be</li> <li>I will only be using the virtual camera</li> </ul>									
The auto-configuration wizard will determine the best settings based on your computer specs and internet speed.									
This can be run at any time by going to t	the Tools menu.								
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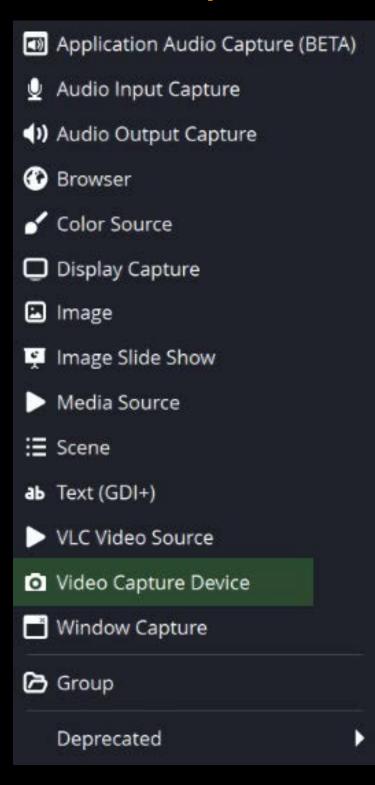
The Auto-Configuration Wizard optimises OBS Studio for your needs, whether you're streaming or recording high-fidelity video.

It takes into account what you want to do in OBS Studio, your computer's hardware resources, and your network conditions (if you're streaming).

The wizard shows the first time you run OBS Studio. If you wish to use it again, click on the Tools menu  $\rightarrow$  Auto-Configuration Wizard.



#### 2. Add Sources to your Scenes



When you start OBS Studio, you start with a blank scene by default. You can add all kinds of Sources to show images, text, video, your webcam, game play, desktop, etc.

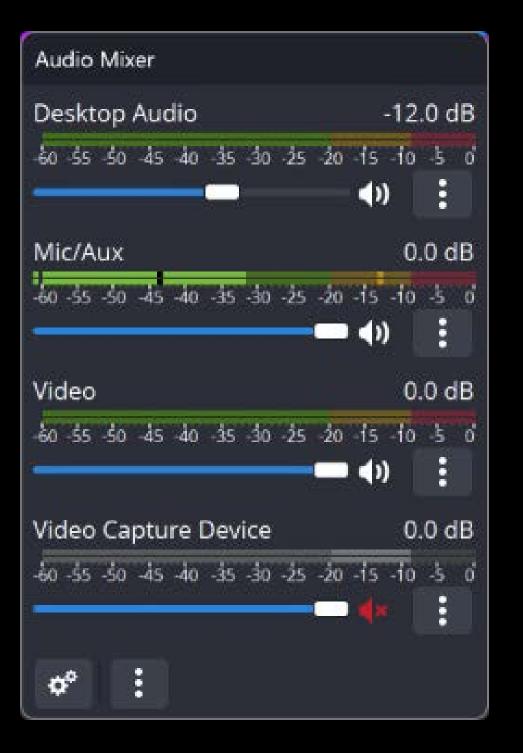
At the bottom of the main window is the Sources Dock. Click on the + symbol to add a source of your choice. Here is the most important source to get you started:

Video Capture Video Capture Source to capture your webcam and/or capture cards/camera



## Using OBS Open Broadcaster software

#### 3. Set up your Audio



By default, OBS Studio is set to capture your desktop audio and microphone. You can verify this by looking at the volume meters in the Audio Mixer (pictured left) at the bottom of the main OBS Studio window.

If they aren't moving, or you suspect the wrong device is being captured, click on Settings  $\rightarrow$  Audio and select the devices manually.



#### 4. Test your Settings



Double check that all your settings are how you want them in Settings  $\rightarrow$  Output. Then, click Start Recording or Start Streaming on the Controls Dock (pictured left).

Make sure to run a test for a few minutes to be certain that there are no issues, rather than just jumping in to your first stream or recording.

