Live streaming on YouTube using Skype and OBS

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You will need a Microsoft windows central computer or laptop, acting as a host computer, running the following applications:
-   Skype for content creators;
-   OBS;
-   Web browser connected to YouTube studio

1/ Download and Install Skype for content creators from following URL:
https://www.skype.com/en/content-creators/

2/ Download and install OBS from following URL:
https://obsproject.com/download

3/ Download and install obs-ndi - NewTek NDI™ integration into OBS Studio plug in from following URL:
https://obsproject.com/forum/resources/obs-ndi-newtek-ndi%E2%84%A2-integration-into-obs-studio.528/

This plugin adds simple audio/video input and output over IP using NewTek's NDI™ technology.

What is NDI?
NDI™ (Network Device Interface) is an open protocol developed by NewTek™ to enable video compatible products to share video across a local area network. This new protocol can benefit any network-connected video device, including video mixers, graphics systems, capture cards, and many other production devices.

4/ To ensure Skype for content creators produce NDI streams to be consumed by OBS, some computers might need to fire up Skype with "--disable-gpu --disable-gpu-compositing".

Create a Skype shortcut on your desktop and modify its properties as follows:

Target:
"C:\Program Files (x86)\Microsoft\Skype for Desktop\Skype.exe" --disable-gpu --disable-gpu-compositing

The above modification is only required if Skype running on your central computer is unable to produce NDI streams to be consumed by OBS.
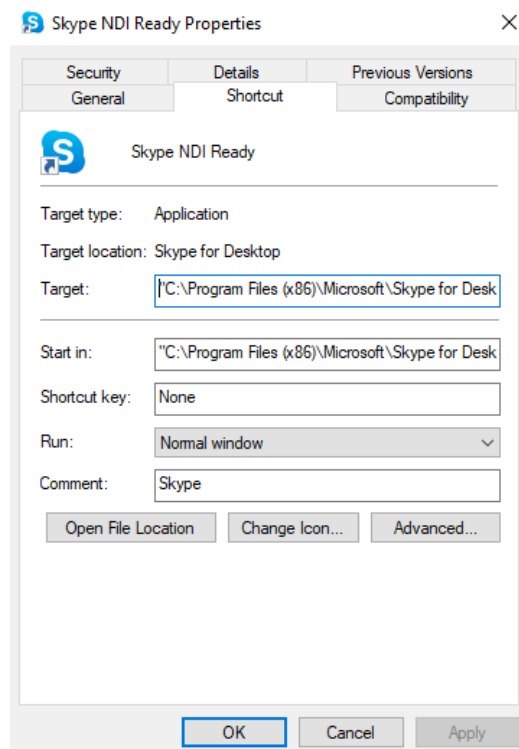
5/ Start Skype for creator contents on your host central computer, Sign in with your nominated Skype account and configure it to produce NDI streams.

I've created a Skype account named Media Flamengo
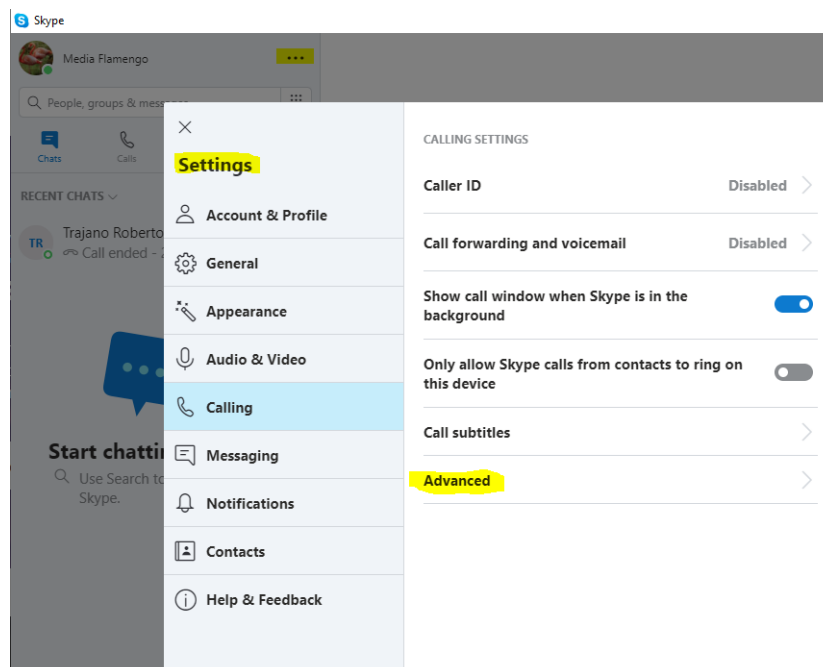eMail: mediaflamengo@gmail.com
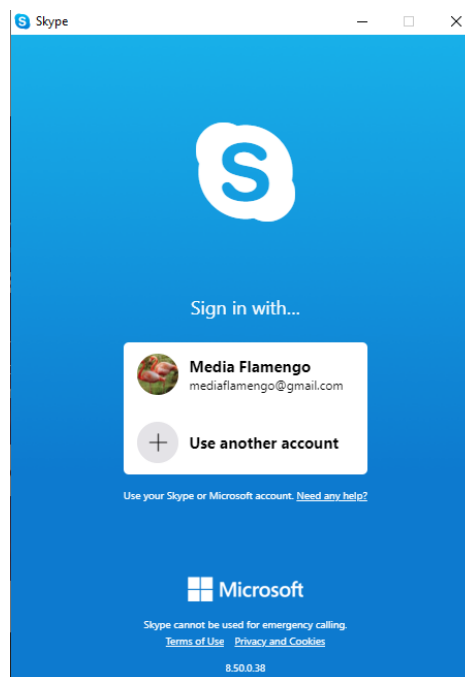
5.1/ You will need to enable "Allow NDI usage" on Skype running on host central computer.
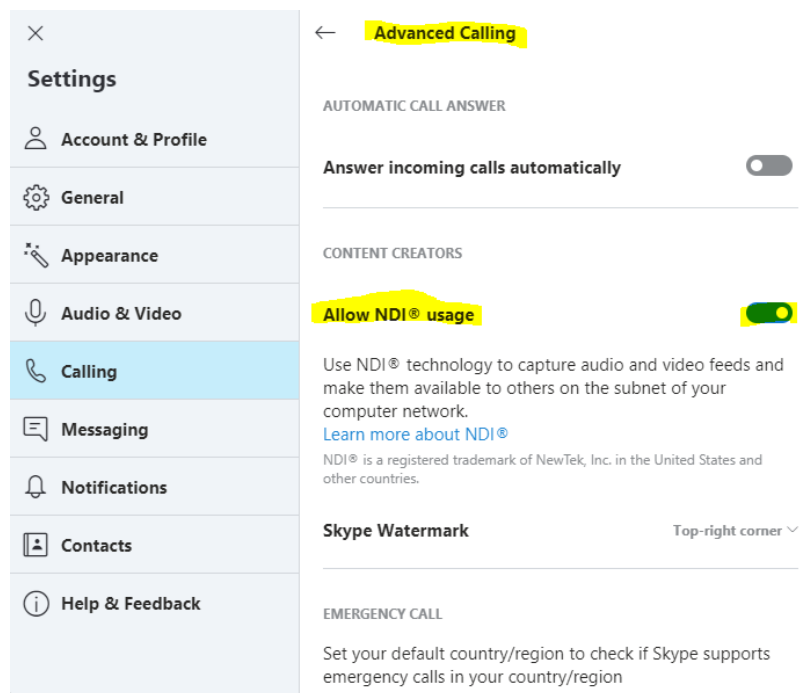Go to:
Settings -> Advanced

Turn the toggle on, "Allow NDI usage"

6/ Start Skype for creator contents on your host central computer, Sign in with your nominated Skype account and start making calls to remote guests SmartPhones and computers.

6.1/ Ensure remote guest SmartPhones and computers have Skype installed and running in order to accept Skype calls from a host central computer.

6.2/ Using Skype for content creators running on the host central computer, initiate Skype calls to remote guest SmartPhones and/or computers.
Host central computer can also accept calls originated from guest remote SmartPhones and/or computers.

6.3/ Upon establishing a call between a host central computer and a remote guest SmartPhone and/or computer, you should see a Skype window on the host central computer.

Following picture on a central computer depicts a call between central and remote.
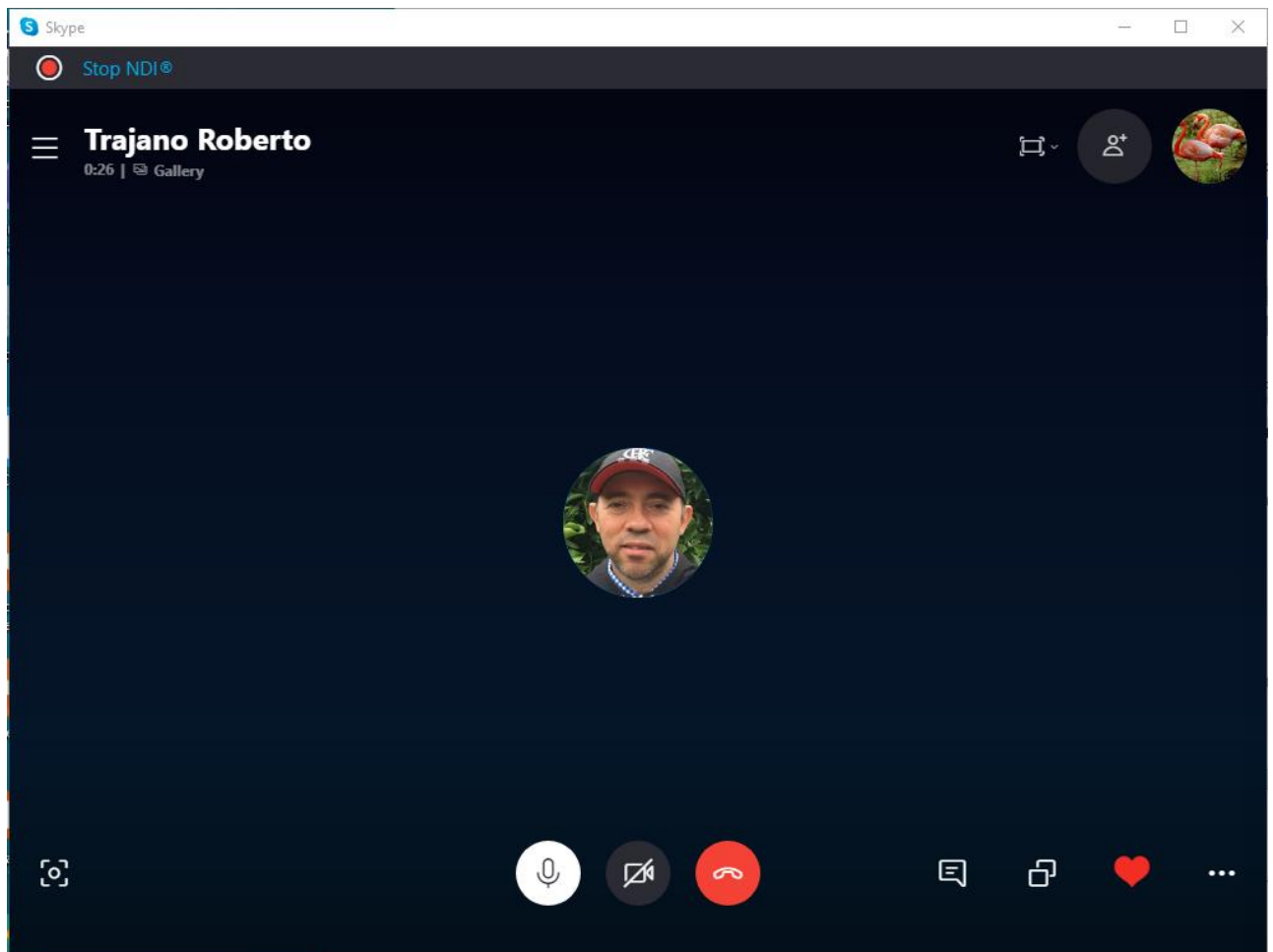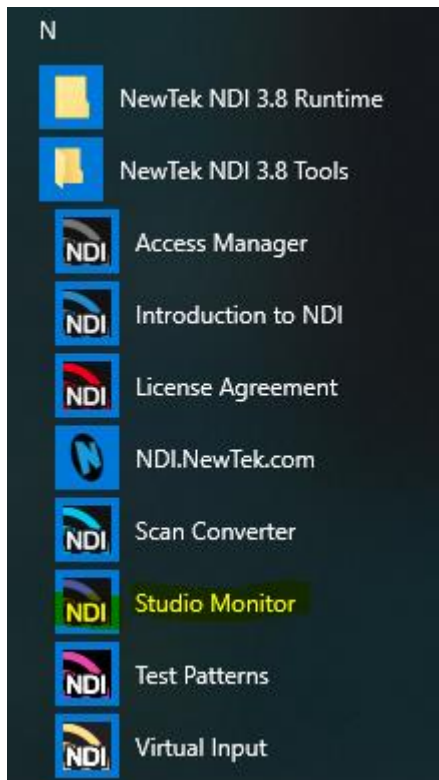
From the above picture you can see NDI is running on a central computer and "Media Flamengo" has a call established with remote SmartPhone "Trajano Roberto"
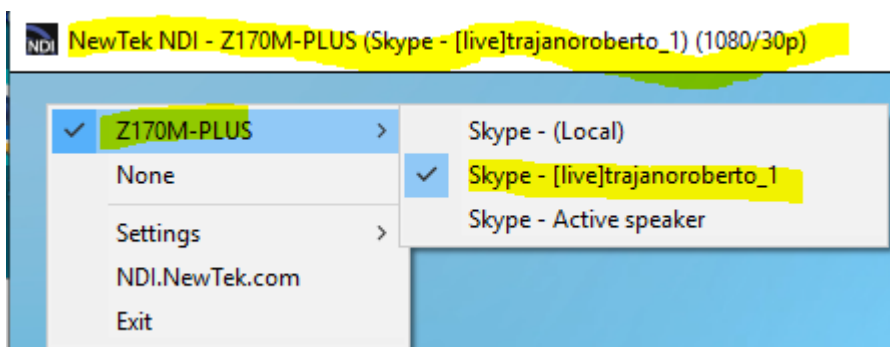
Mute the central computer microphone by clicking on the following:
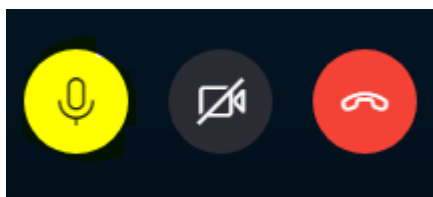
7/ Verify Skype calls are generating NDI streams.
Under "NewTek NDI 3.8 Tools" on your computer, start "Studio Monitor"

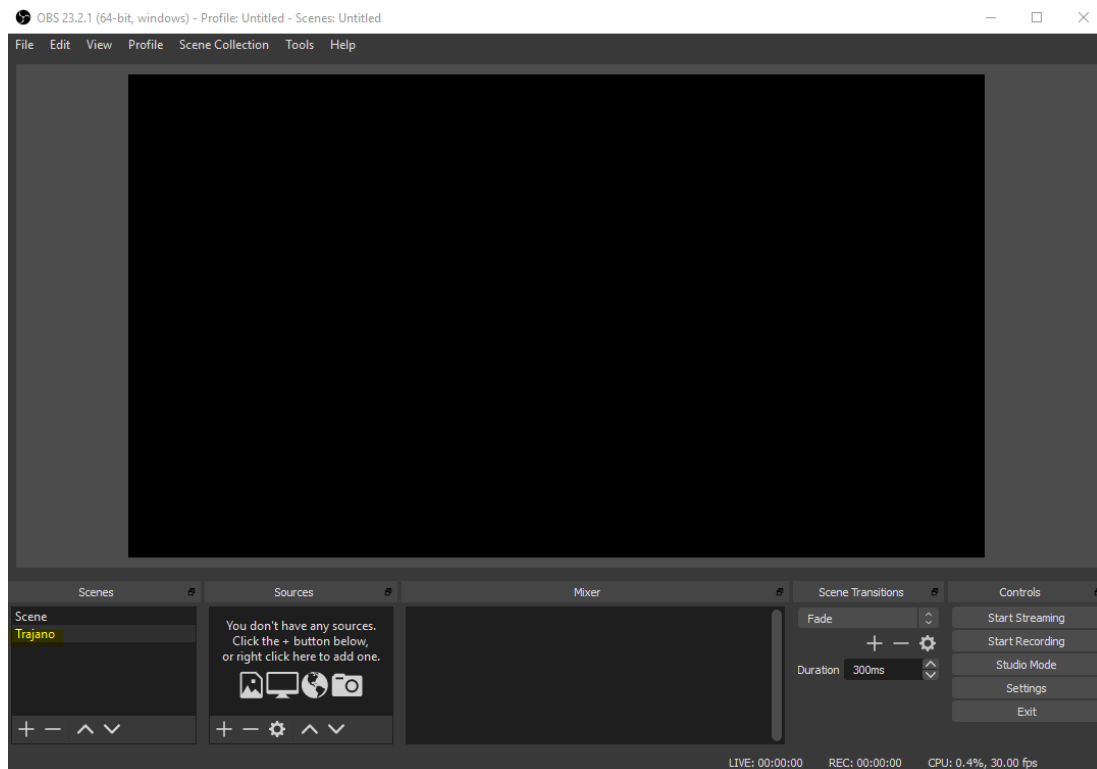Select the remote Skype call you would like to monitor as follows:

Speak on the remote Skype device and a bar graph on the left hand side of the NDI Studio Monitor indicates the audio level
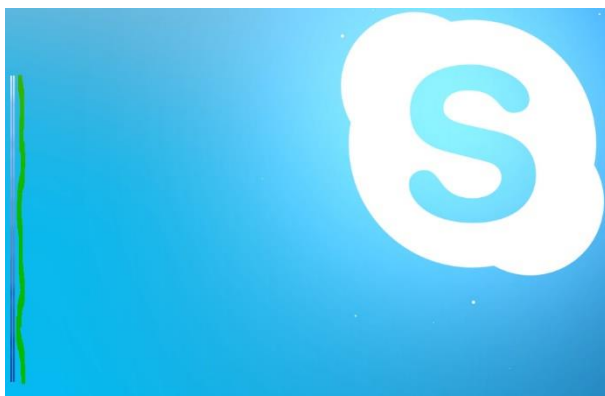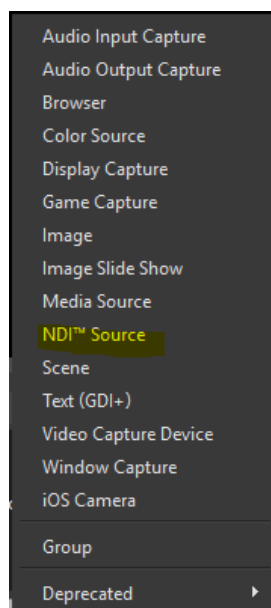
8/ Start OBS on the host central computer.

8.1/ Add a Scene, named Trajano as an example or any other name, by clicking + under Scenes

8.2/ Trajano's Scene must have a NDI source related to Trajano's SmartPhone Skype call (can be a video or just audio call).
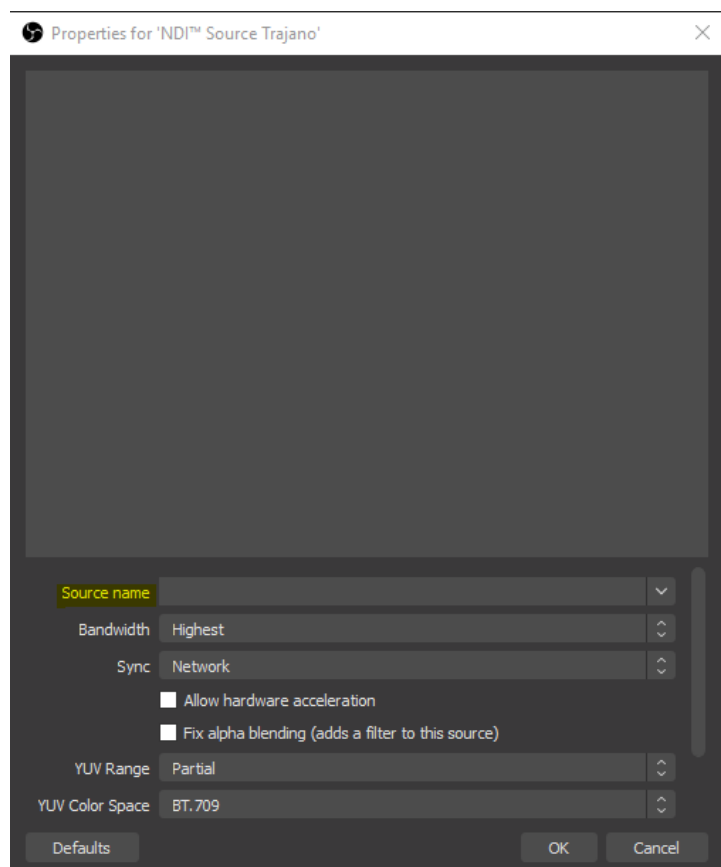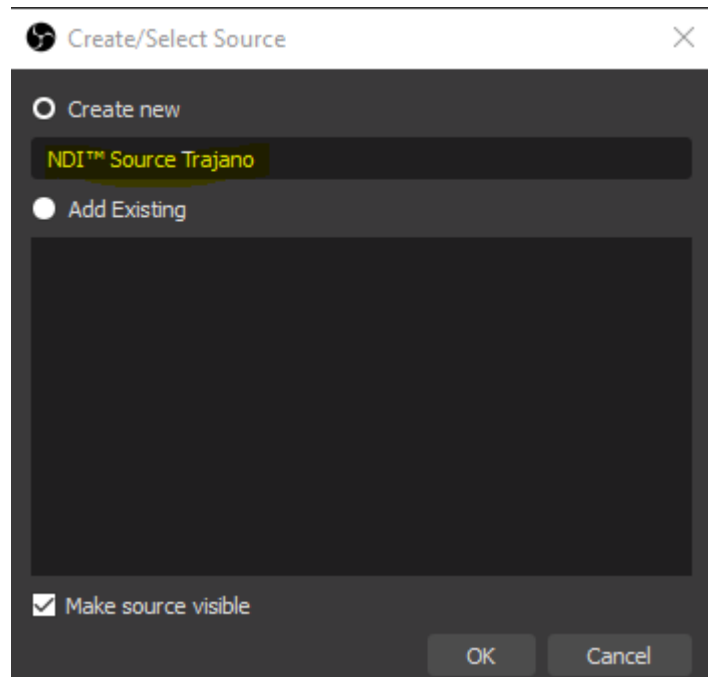Select Trajano under Scenes
Under Sources click + and select NDI Source

8.3/ Type in your new source:
"NDI Source Trajano" as an example or any other name and click OK.
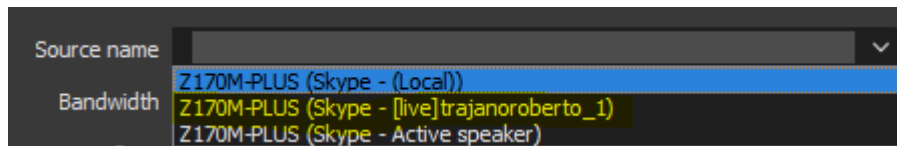
8.4/ Select a Source name as follows:
Select the alternative related to the Skype call established with your SmartPhone.
As an example, I have an iPhone Skype call established with a central computer named Z170M-PLUS
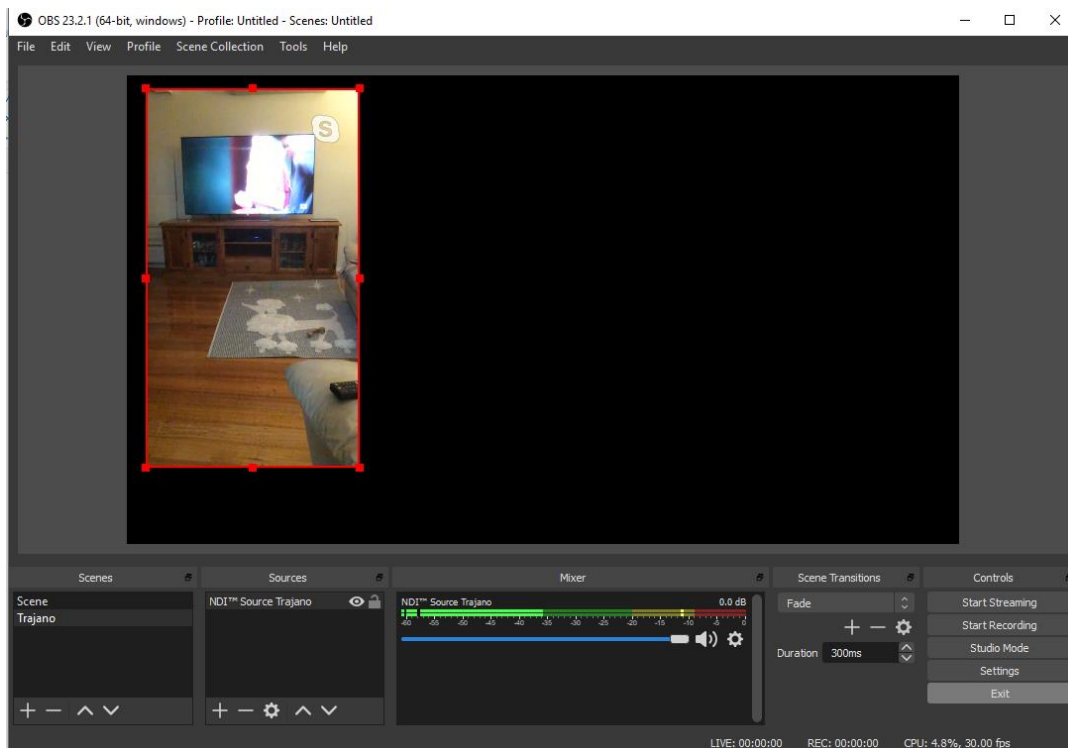
I select:
Z170M-PLUS (Skype – [live]trajanoroberto_1)
and click OK.

8.5/ OBS screen shows the video coming from the remote SmartPhone (in this example, from my iPhone).
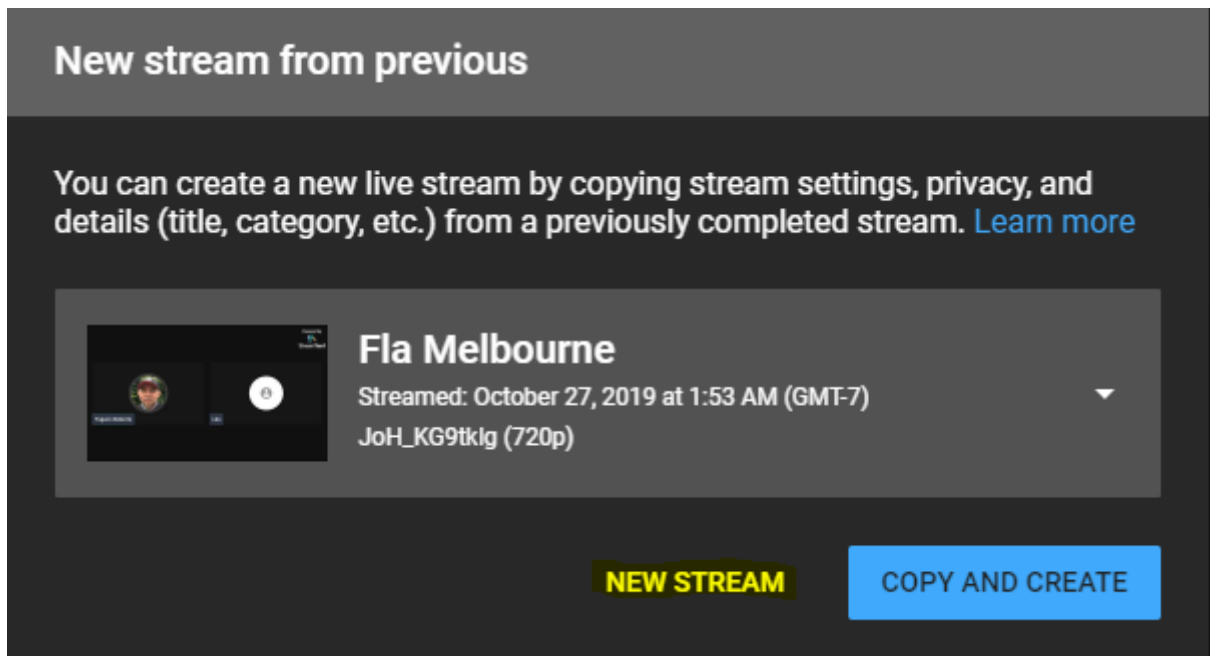You can turn off the camera on your SmartPhone by pressing respective Skype button, and then only audio will be streamed to OBS.

9/ Open a web browser and connect to YouTube studio via your google account.
Click the Go Live icon:
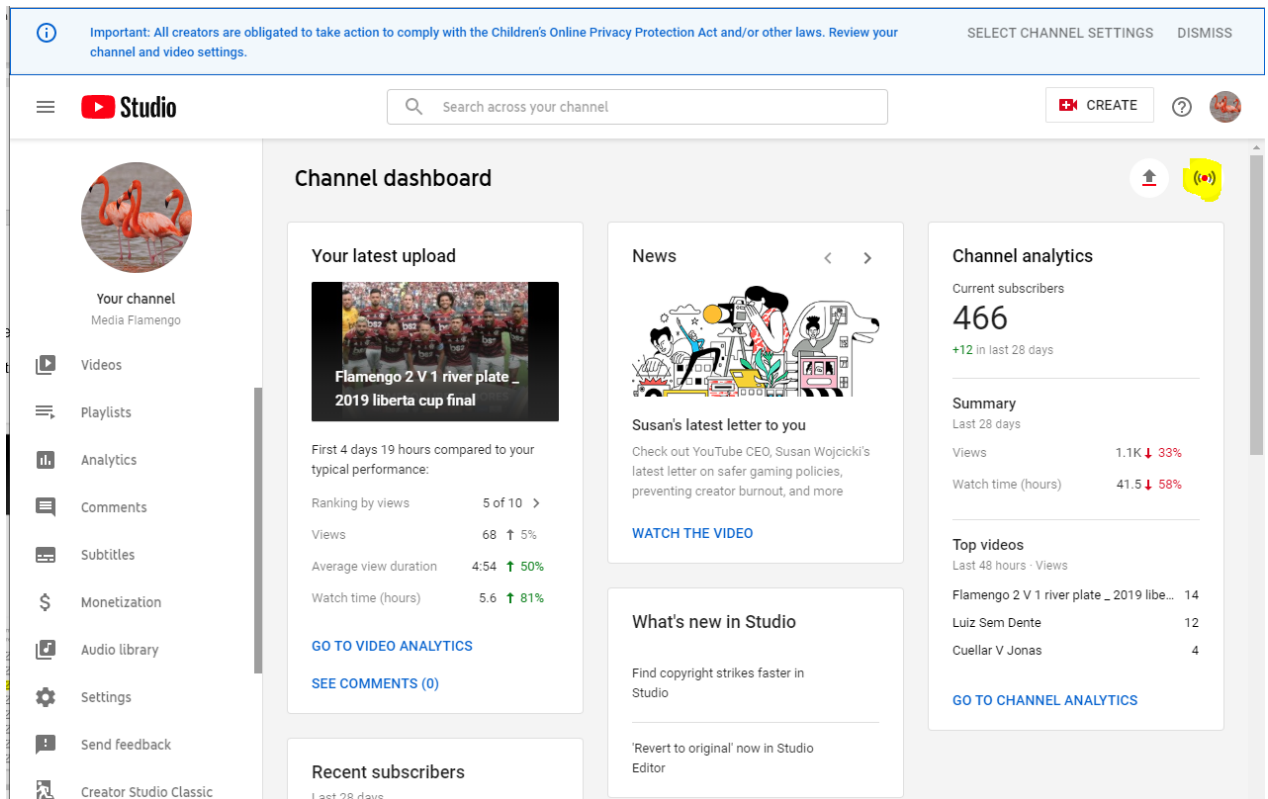
9.1/ Another screen pops up. Click "NEW STREAM"

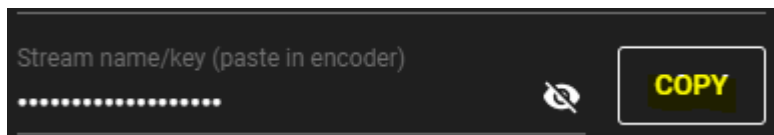9.2/ Fill in data and click "CREATE STREAM" button

9.3/ Following screen pops up with the details of the YouTube live stream.
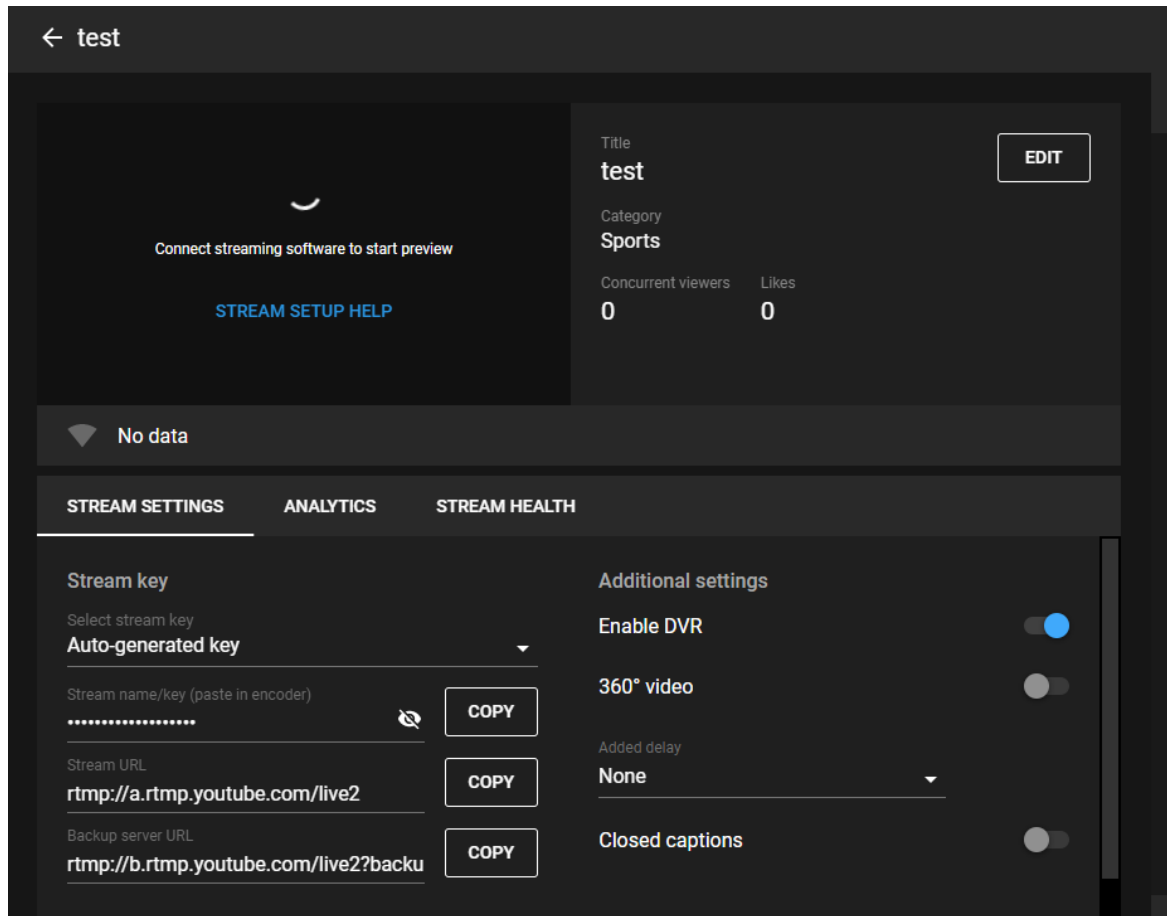
9.4/ Press the button "COPY" to copy the "Stream name/key (paste in encoder)", required by OBS which is the encoder for the YouTube live stream.
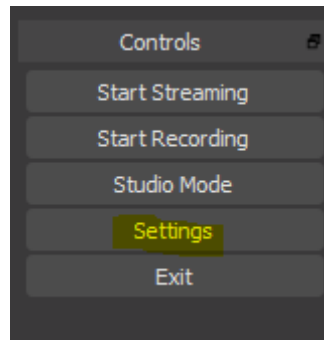

10/ Go back to OBS to start live streaming.

When you have all sources (videos and/or audios) from various guests, appearing on OBS screen, you can start preparing the live stream.
You will need to paste the Stream name/key generate by YouTube onto OBS.

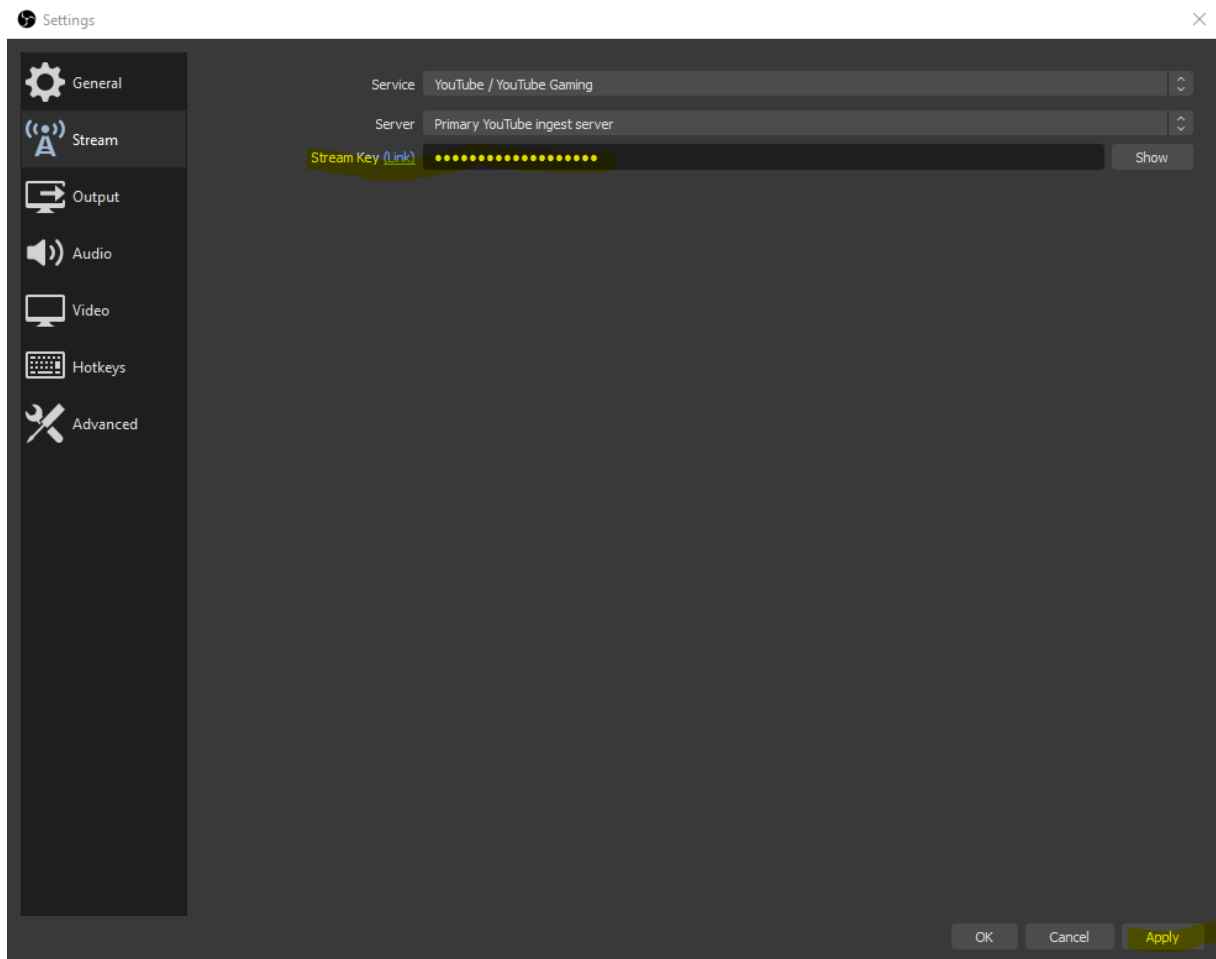10.1/ On the bottom right of the OBS screen, under Controls, click "Settings"

10.2/ The following screen pops up. Click "Stream" on the left-hand side
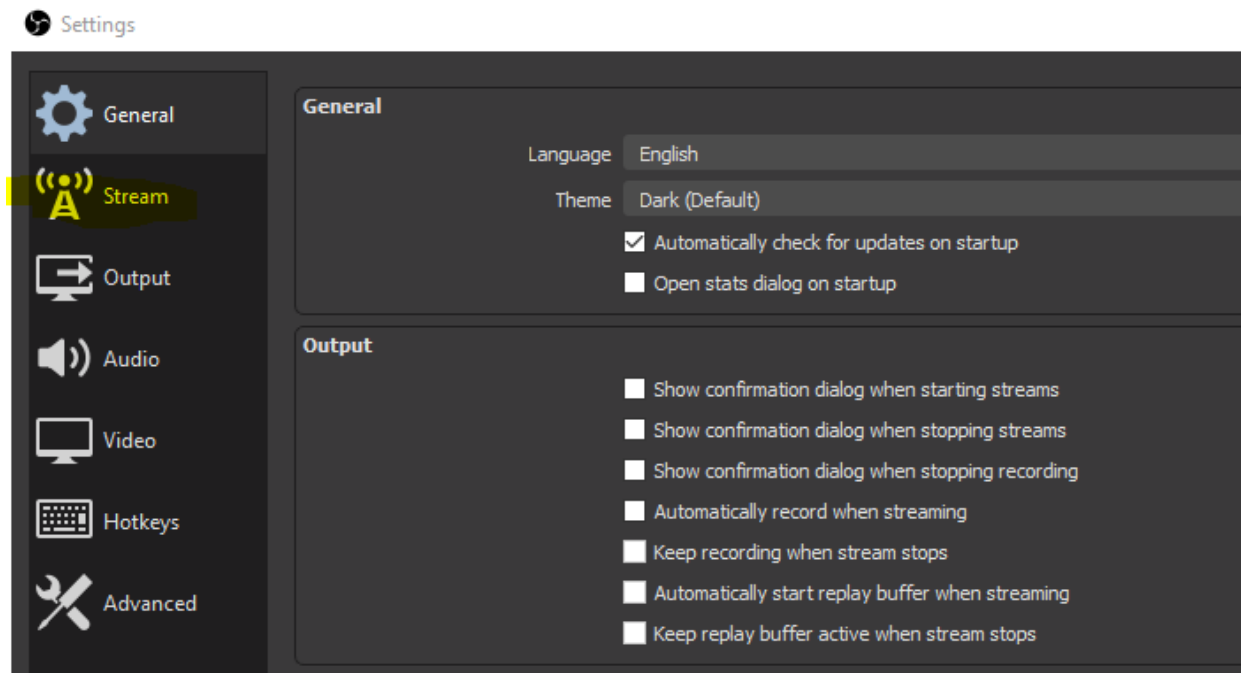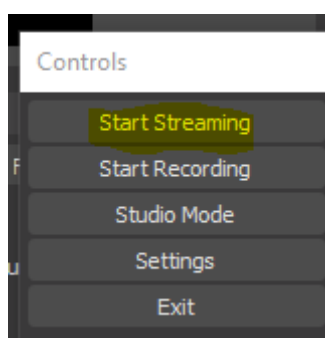

10.3/ The following screen pops up.
Paste the "Stream name/key (paste in encoder)" generated by YouTube onto OBS "Stream Key" field and click "Apply".

OBS has now the YouTube "Stream name/key".
Live stream generated by OBS will be directed to YouTube stream servers.

10.4/ to initiate streaming, click OBS button "Start Streaming" located at the bottom right of the screen.

10.5 / OBS allows you to customise the live streaming screen.
In addition to Skype NDI live feeds (video or audio only), you can add various other contents while streaming:

11/ OBS Studio's documentation URL:
https://obsproject.com/docs/