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import cv2

cascade_face = cv2.CascadeClassifier('haarcascade_frontalface_default.xml') #Load the cascade

cap = cv2.VideoCapture(0)

import cv2
from google.colab.patches import cv2_imshow # Import cv2_imshow for displaying images in Colab

# Initialize video capture
cap = cv2.VideoCapture('video_file.mp4') # Replace with your video source

# Check if video capture was successful
if not cap.isOpened():
    print("Error: Video capture could not be opened.")
    exit()

# Load the face cascade classifier
cascade_face = cv2.CascadeClassifier('haarcascade_frontalface_default.xml') # Replace with your cascade file

while True:
    ret, img = cap.read()

    # Check if frame was read successfully
    if not ret:
        print("Error: Frame could not be read.")
        break

    # Convert the frame to grayscale
    gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)

    # Detect faces in the grayscale frame
    faces = cascade_face.detectMultiScale(gray, 1.3, 5)

    # Rest of your face detection code here...

    # Display the frame with detected faces using cv2_imshow
    cv2_imshow(img)

    # Break the loop if 'q' key is pressed
    if cv2.waitKey(1) & 0xFF == ord('q'):
        break

# Release the video capture and close any open windows
cap.release()
cv2.destroyAllWindows()
```

