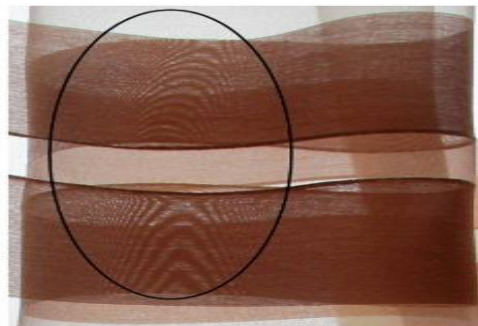
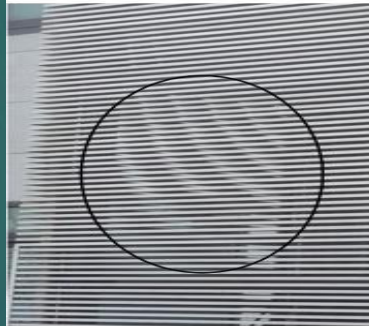


# MY SCREEN

FEATURED BY: RITWIK, KRISHNARJIT, HARSH,  
RUPAM AND HIMNISH

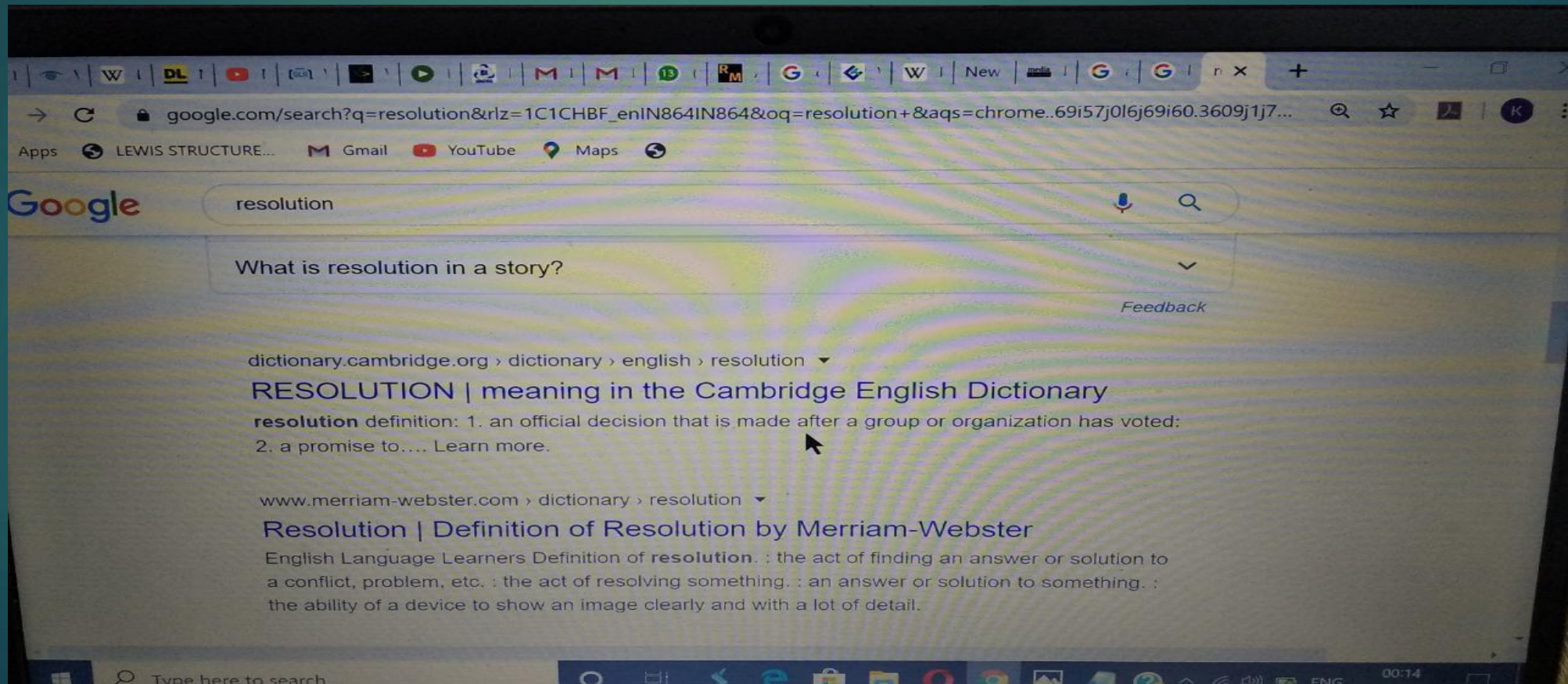
# Some similar patterns in our daily life:



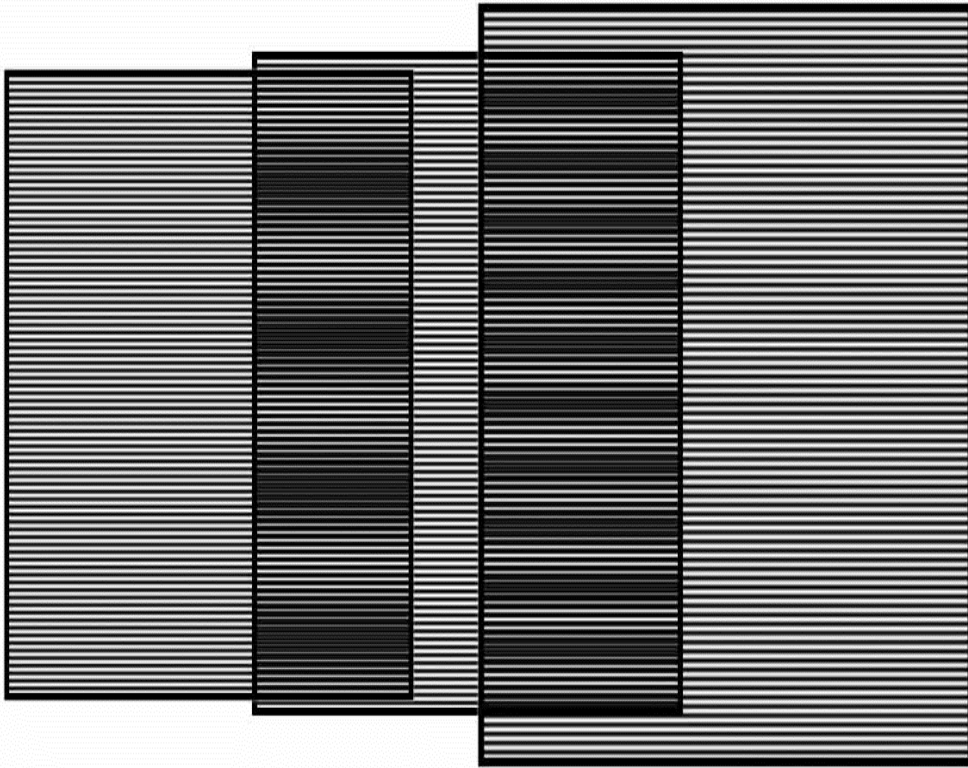


# What are the patterns shown in the previous slide ?

## ► **MOIRE PATTERN**



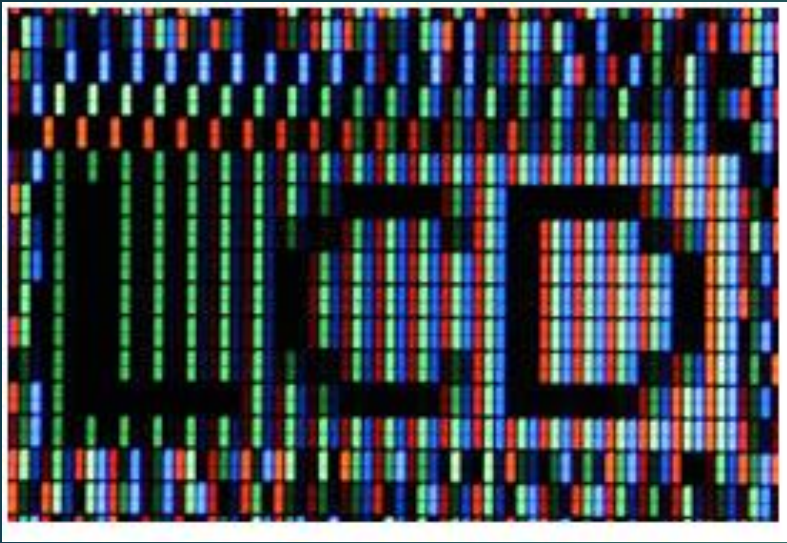
# How do we get this ?



- Moire effect is a visual perception that occurs when viewing a set of lines or dots that is superimposed on another set of lines or dots, where the sets differ in relative size, angle or spacing.

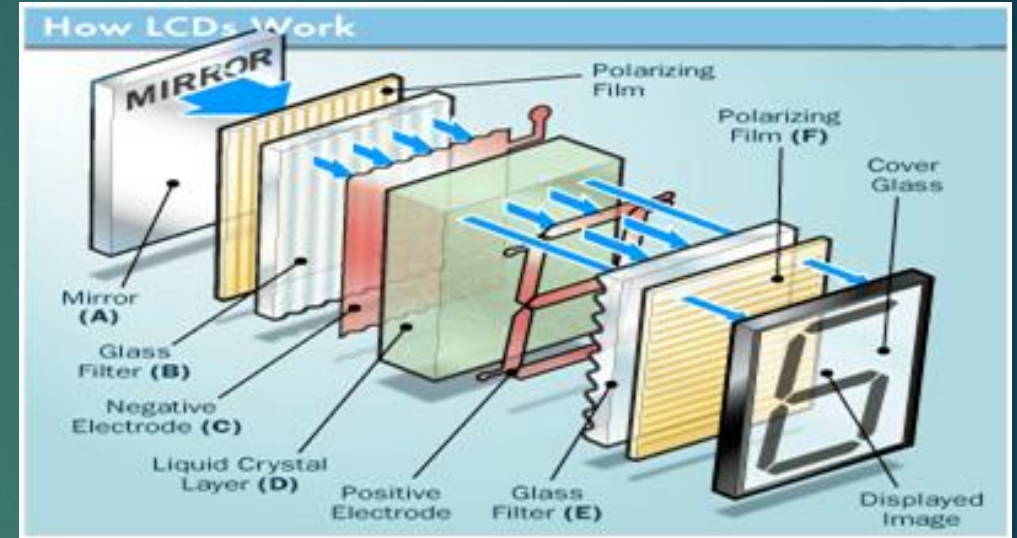
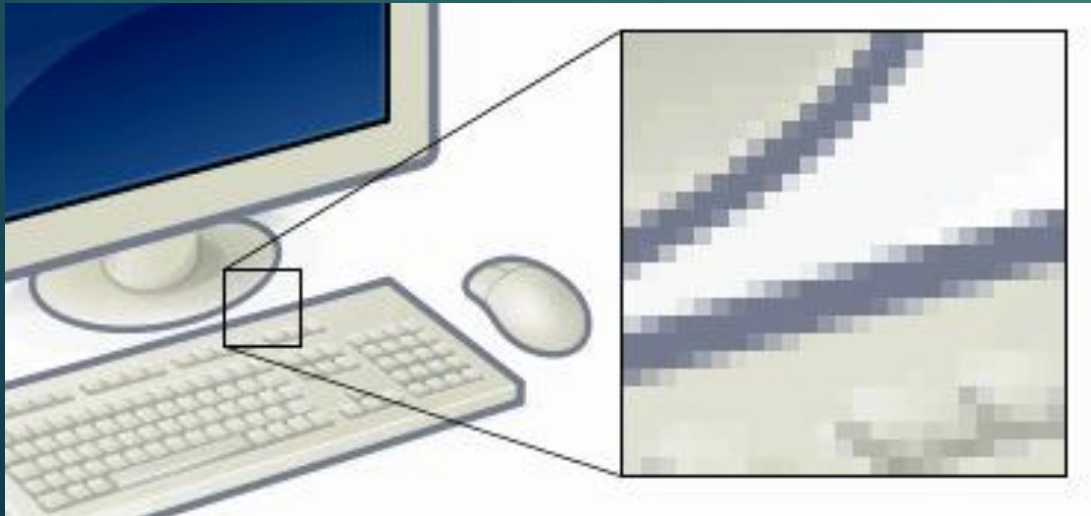
*Why does it  
appear  
on  
"My Screen" ?*





# WHAT IS LCD ?

## WHAT IS PIXEL ?

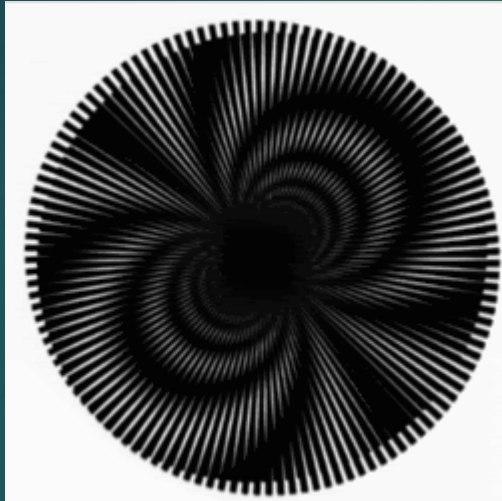


### PIXEL SIZE:

LAPTOP SCREEN: 1366\*768

MOBILE SCREEN: 720\*1280

# What creates Moire Patterns while videotaping LCD display?

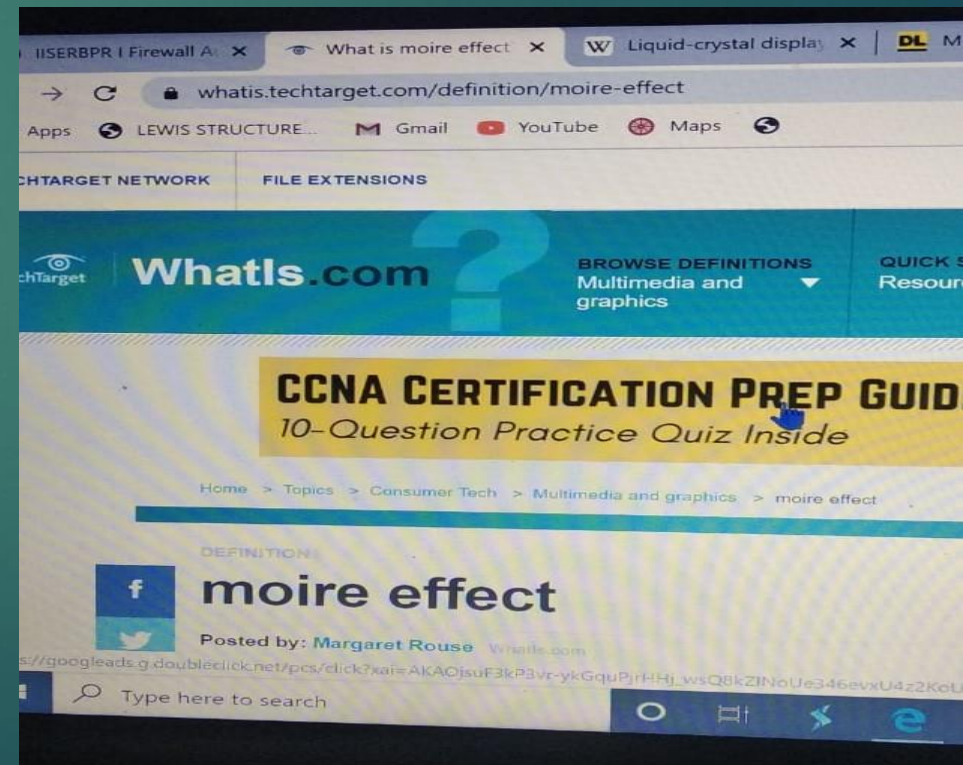


*In case of capturing an LCD display ,the moire pattern occurs when the pixel structure of the LCD screen conflicts with the pixel structure of the photograph or video tapping on our mobile phones . Since the LCD screen of of our computers have lower pixel density and larger pixel size than the resolution of our mobile phone camera .*

- On what parameter does this pattern depend?

The visual appearance of these patterns depends on the pixel density and on the location of the cellphones

- ▶ What happens when we send these photos to our friends on Whatsapp or Insta?
- ▶ No change in pattern is observed





# References

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- Kobayashi, Katsuyoshi (1996-01-01). "Moiré pattern in scanning tunneling microscopy: Mechanism in observation of subsurface nanostructures". *Physical Review B*. **53** (16): 11091–11099. [Bibcode:1996PhRvB..5311091K](#)

THANK

YOU !!!