

# **LiFi - Light Fidelity**

Visible Light Communication

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Light Fidelity (Li-Fi ) is a bidirectional, high speed and fully networked wireless communication technology similar to Wi-Fi

# Wifi vs Lifi

## LiFi

- Visible light communication or infra-red and near ultraviolet

## WiFi

- Radio Frequency Waves



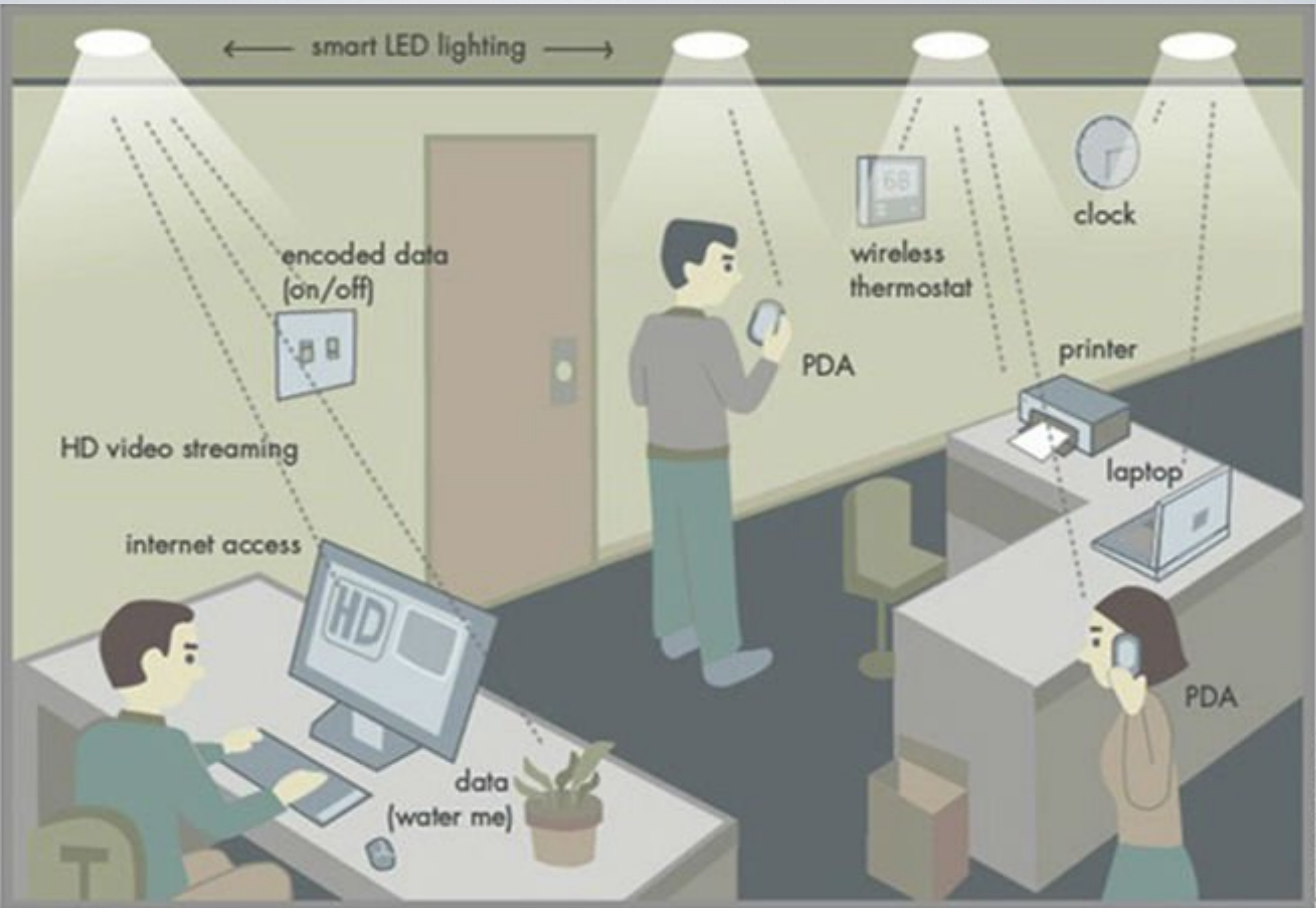
# OVERVIEW

- 100 times faster than WiFi
- Max speeds of 224 gigabits per second
- Invented by Harald Haas ( Professor of Mobile Communications at the University of Edinburgh)

# TRANSMISSION

- LED lamps is used as Transceiver







# HOW IT WORKS

- LED's can be switched on in less than  $1\mu$  seconds



# ADVANTAGES

- Can be replace any light into a LiFi Transceiver
- Can be used in RF Restricted Areas
- Hospitals to avoid Radiations



# LIMITATIONS

- It can't penetrate through wall ( or other objects )
- External light sources will cause interruption ( Sun, other light sources )
- Device to Transmitter communication is complex

“The end”