

# DENCITY

**SENSE, COLLECT, MAP**  
**SUBJECTIVE WORLD DENSITY**

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# WORLD DENSITY

## Attention



Eyes represent  
their attentions



# WORLD DENSITY

In city



What do people  
look at?



# WORLD DENSITY

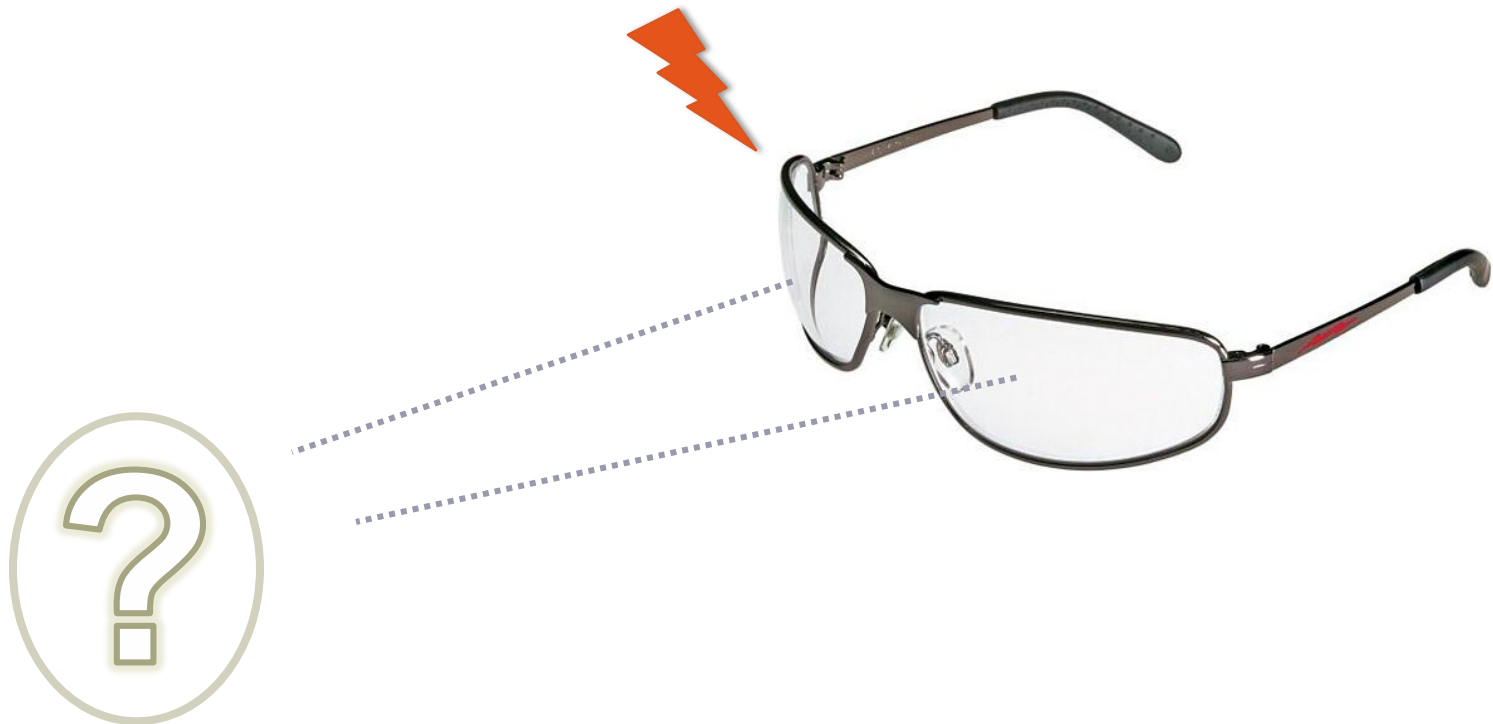
City is not flat, but has subjective density distribution.



# SENSE

Using a device combined with glasses or camera

Sense the point at which gaze is directed



# SENSE

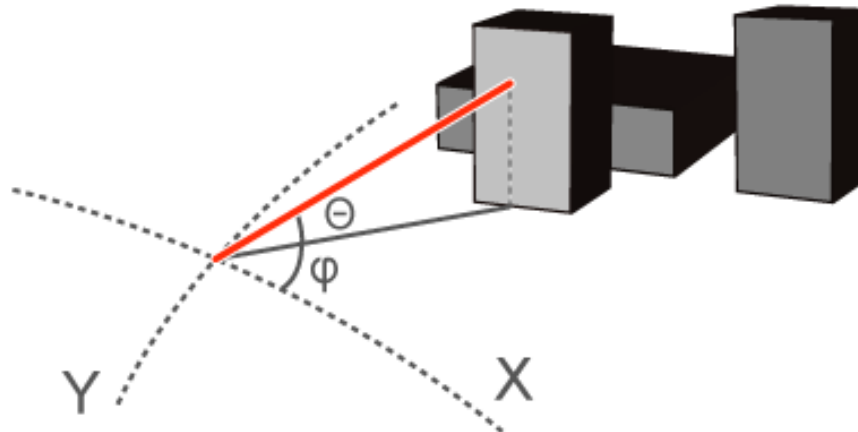
## Sense

**Global position ( $X, Y$  : latitude, longitude)**

**Gaze direction ( $\Theta, \varphi$ ) (focus point)**

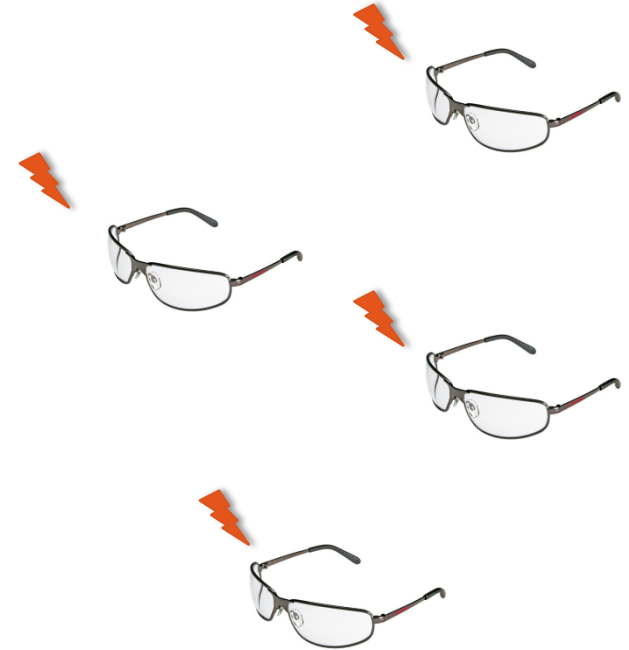
## Compute with

**Buildings information (position & height)**



# COLLECT & MAP

In daily life, people always send their gaze-info.  
Density map is generated in real time.



# APPLICATION

## Advertisement



Detect inefficient Ads



Suggest new efficient Ads



# APPLICATION

## Real-time feedback for city planning



Prevent traffic problem



Detect “Invisibility”  
(not functioning objects)

Judge commercial efficiency



# まとめ

## ・集合知

眼鏡/カメラに結合したデバイスにより視線情報をセンシング

人々の視線の疎密を集積、分析、マッピング

⇒ 世界の濃度分布が得られる

性別、年齢、ほか対象の属性でカテゴライズし分析してもよい

## ・活用

視線が自然と集まる場所が分かる

⇒ 効果的な広告の配置、商業計画が可能に

視線が集まらない、目に入らない場所が分かる

⇒ 都市計画の基礎的データとして、安全対策などにも