

A man with glasses is looking upwards with a surprised expression. A hand is using a tool to adjust or examine his forehead. The scene is dimly lit with a reddish-pink hue.


# Seeing is Believing

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Route

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**ROUTE**



**Route provides audience estimates for  
c. 400k posters and screens around GB**

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# Our measures are familiar to other media...

**1. Reach:** the unique number of people seeing the campaign

**2. Cover:** the proportion of the target audience who are exposed to the campaign

(Population / Reach)

**3. Impacts:** the total number of times the target audience sees the campaign

(Reach \* Frequency)

**4. Frequency:** the average number of times those exposed to the campaign will see it

(Impacts / Reach)

**5. Gross Rating Points (GRPs):** a measure of campaign effect. Generated by taking the proportion of target market reached and multiplying it by the number of times the ad is seen (useful for cross-channel comparisons)

(Cover \* Frequency)







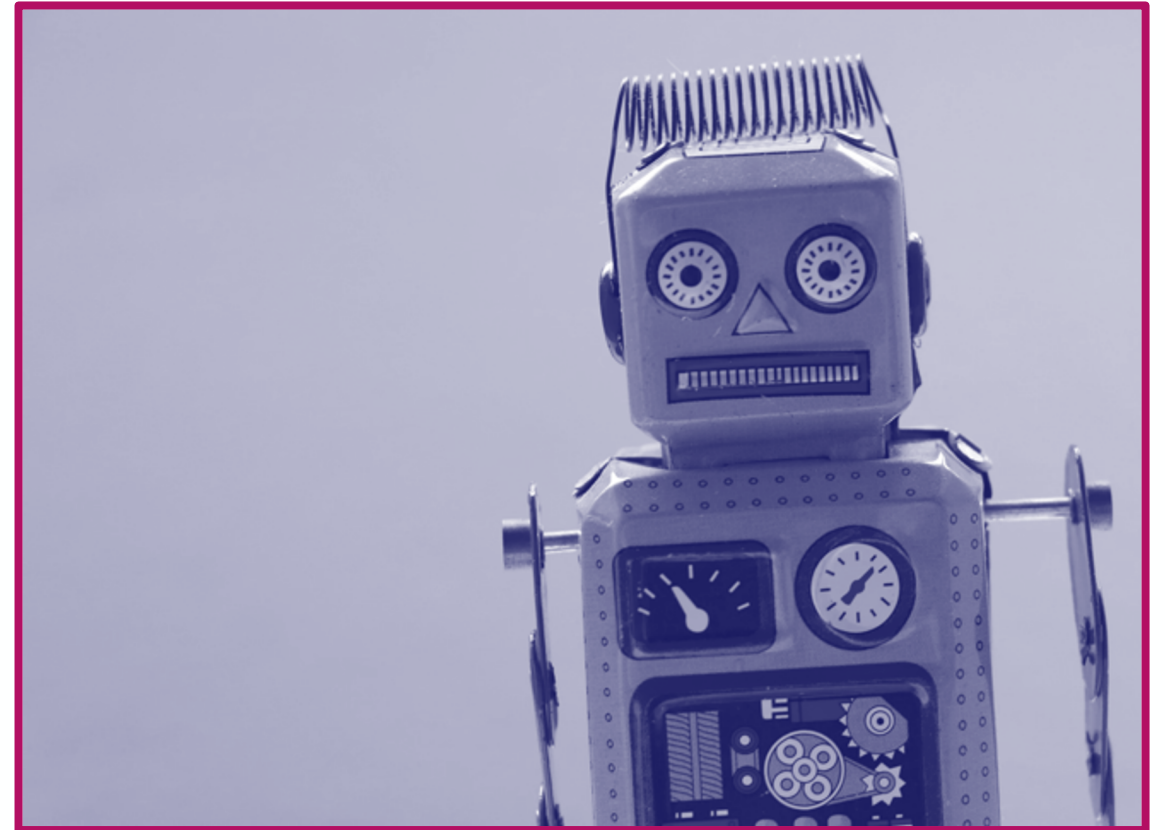
**Impressions  $\neq$  Impacts**

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Impression: Measurement of responses from a web server filtered from robotic activity and error codes, recorded at a point as close as possible to opportunity to see the page by the user.

Viewable impression: >50% of pixels on an in-focus browser tab on the viewable space of the browser page for greater than or equal to one second, post ad render (for video ads it's 2 seconds)



# Digital impressions are equivalent to a count of OOH spots / ads broadcast.

Not only is this not a measure of audience, but it assumes a one to one medium, whereas OOH is one to many, meaning multiple people can see each ad.





LOOK  
AT ME.

WE CAN STOP IT.

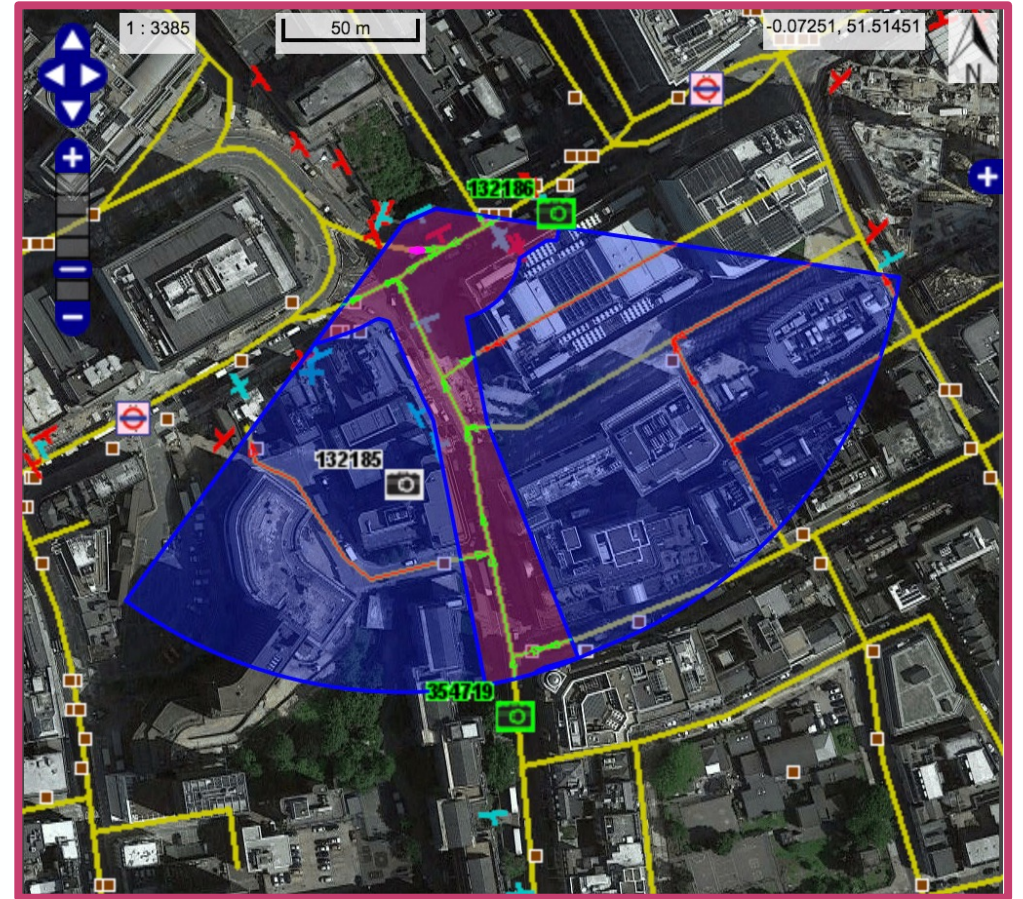
We measure people who  
actually see ads

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# We use it to calculate the areas from which ads can be seen

- In 1997 Route (nee Postar) undertook research to determine the maximum distance from which it is possible to see a poster or screen.
- This used psychophysical methods.
- The outcome is an equation calculating the distance from which any site can be seen on the basis of its surface area.
- This calculation is applied to all frames that Route measures and governs the areas and links from where it's possible to see the ad.



Then determine how likely those within visibility areas are to see an ad



In addition to calculating the areas from where people are exposed to OOH, we use eye tracking to determine how likely people passing through the visibility areas are to see the ads.

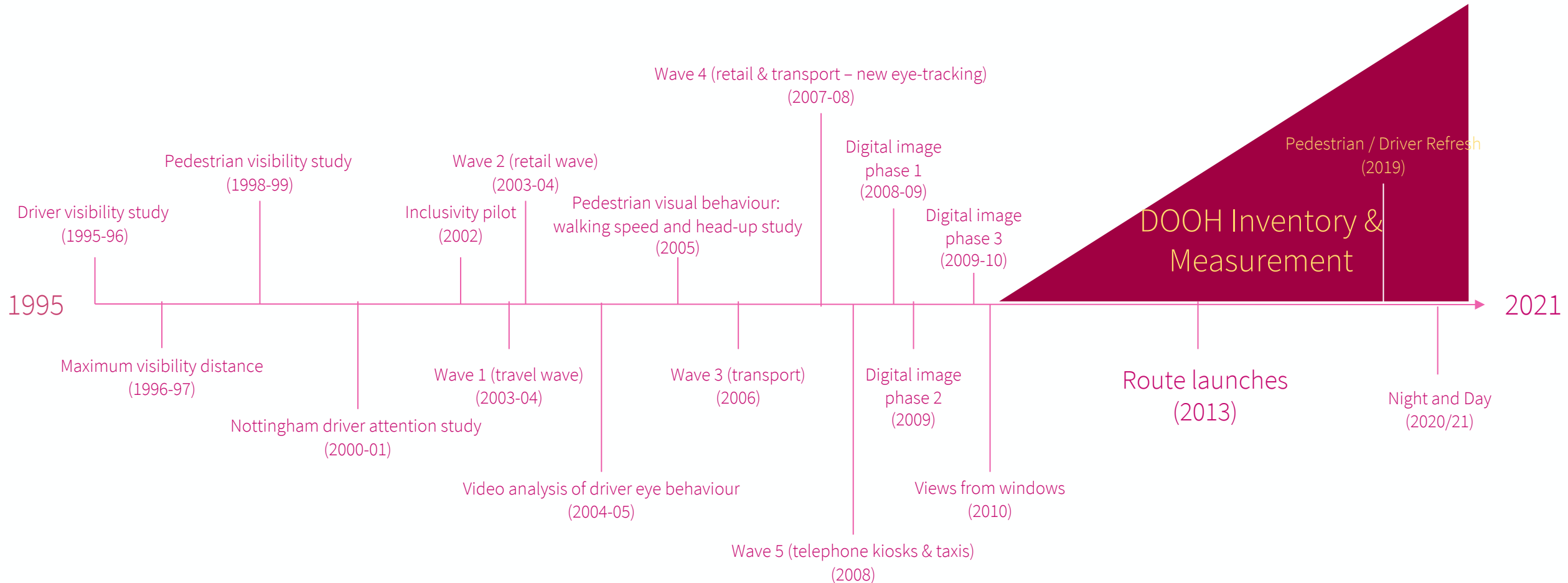
# What do we know about how people view OOH ads?

Lots! Route has conducted a wealth of visual attention studies to build up our understanding of how likely people are to notice OOH ads.





# Route's legacy in visual attention pre-dates Route



Route continues to build knowledge and expertise in this space and are currently in field with new work now



# How do visual attention studies work?

Then



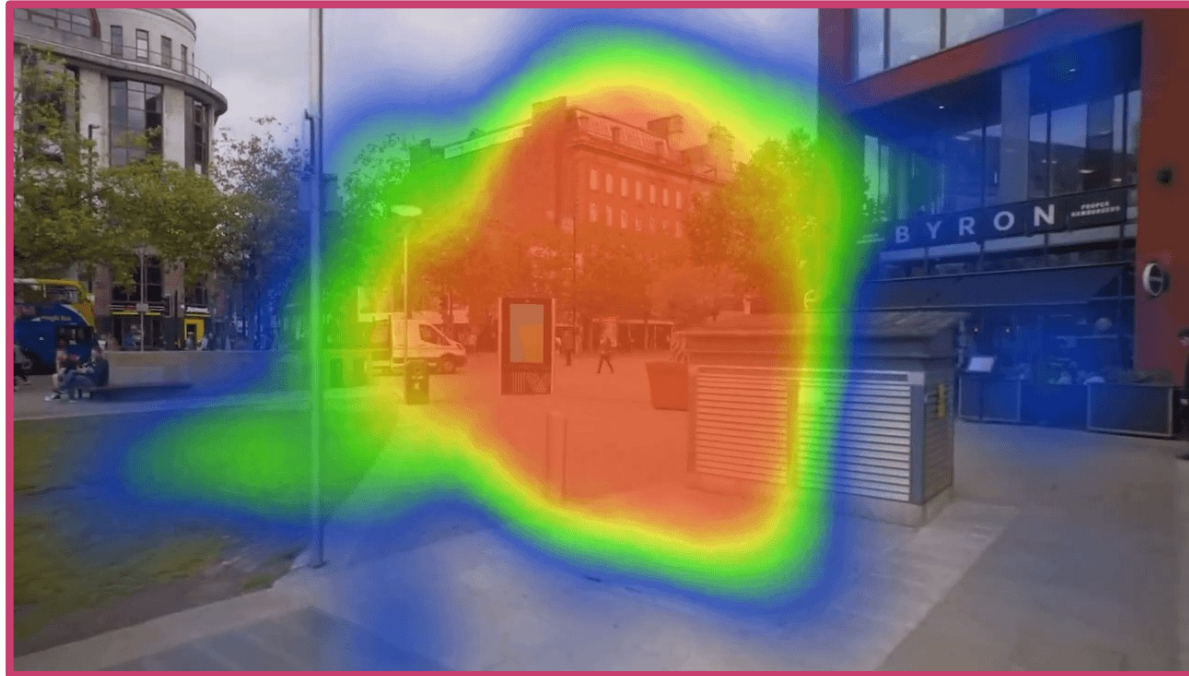
Skalar IRIS eye tracking system + IBM compatible 486 PC situated in a dimly lit room illuminated by a single 60W lamp positioned above + Viglen 14 inch IBM PC VGA colour monitor operating with at a resolution of 640 by 480

Now



Tobii X2-30 eye tracking devices + 24" inch screens, in 16:9 aspect ratio, with refresh rates of 75Hz and screen resolution of 1920x1080

# Calculating how likely people are to see an ad when they have the chance to



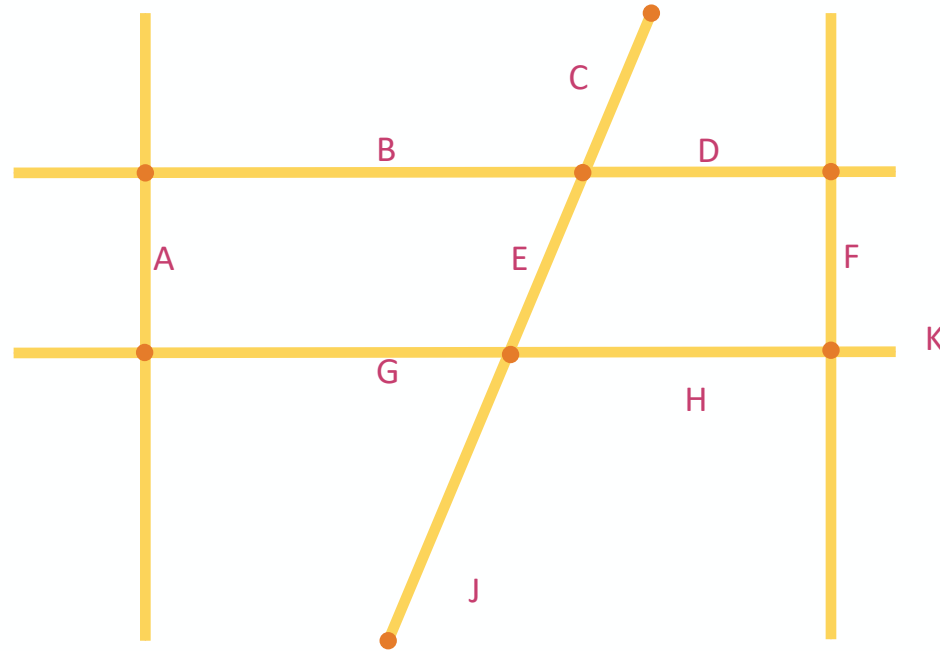




**How does it work in practice?**

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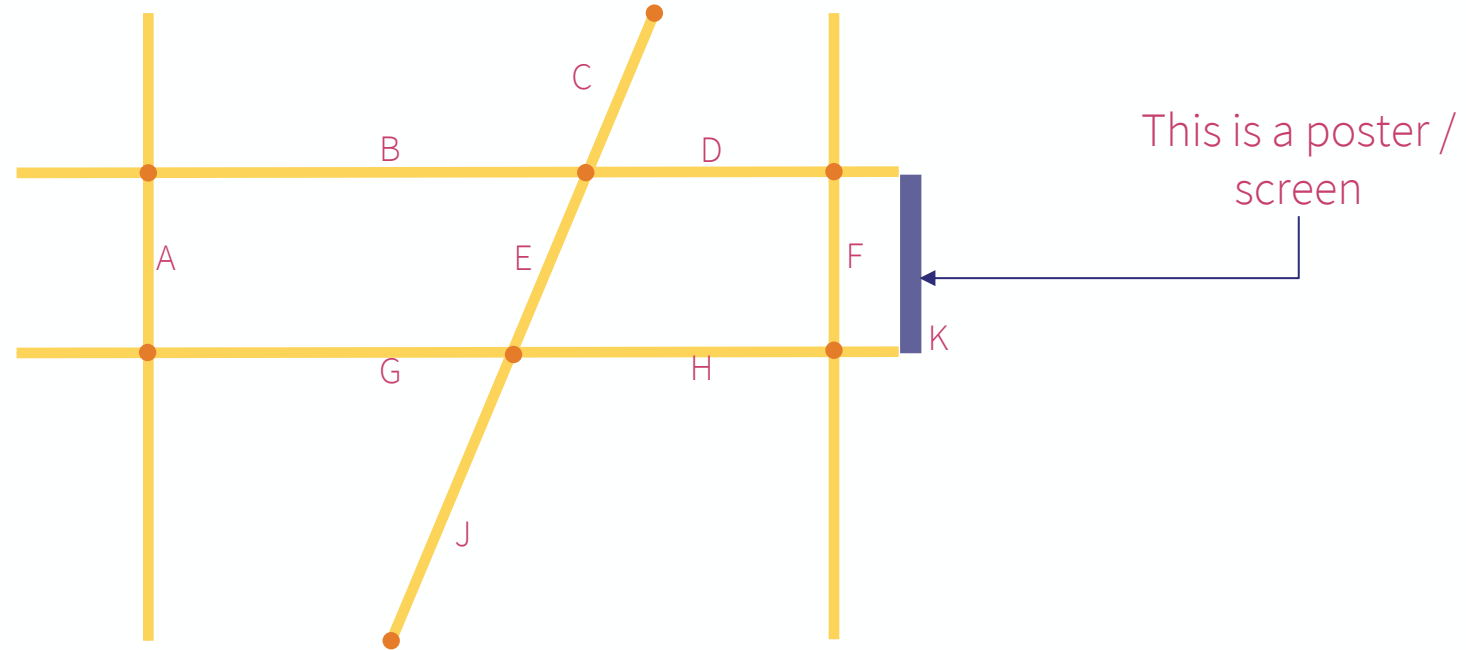
# We start with a map



We start with a map (the lines in yellow). This may be either indoors or outdoors. Each of the lines above represent different 'links' (roads or pathway segments of up to 20 metres in length).

In this instance the letters denote 10 people.

# We then add the inventory

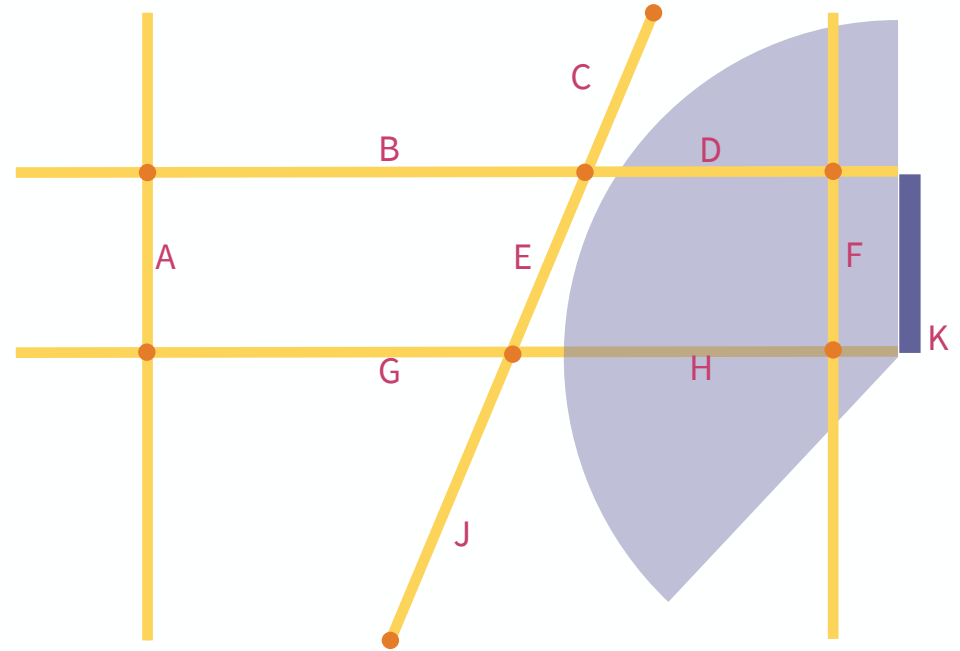


We then locate the posters / screens on the map. All 10 people here have an opportunity to see the OOH ad as they are in proximity to the ads.



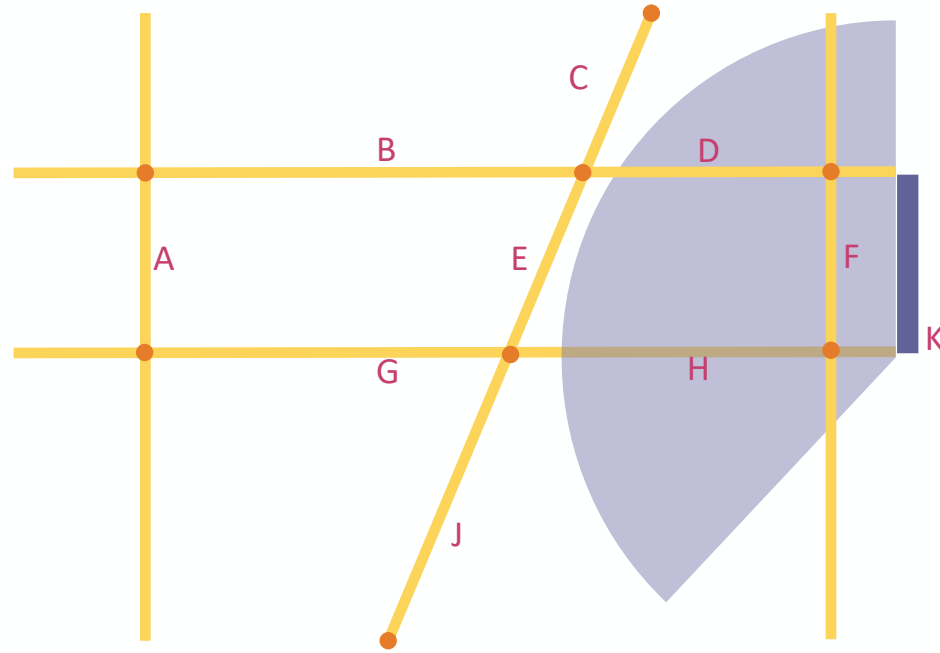
# We determine areas (and links) from where ads are visible

Eye-tracking research enables Route to calculate the maximum visibility distance from which OOH ads can be seen. These are used to create ‘visibility areas’ (highlighted in blue) which are appended to our maps. Anyone travelling on links within these areas, have a realistic opportunity to see the ad.



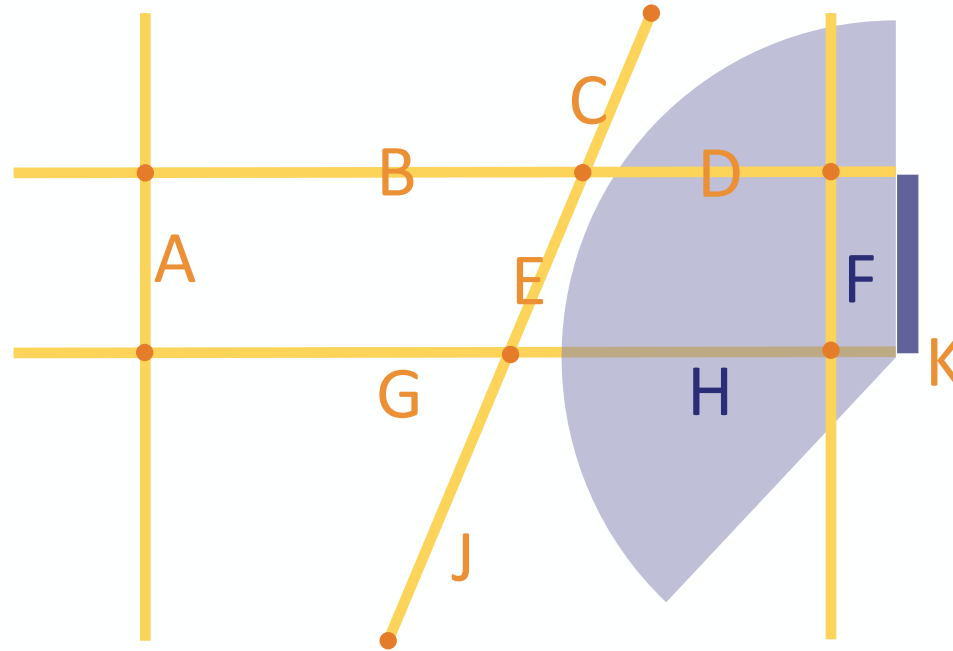
Three people in the example above fall into this category. Worth noting that person K, though closest to the ad, can't see it, as they are hiding behind it. However, we don't stop there...

# But we don't stop at this point...



We can't just accept that because people can see the ad, that they have actually looked at it. We need a measure of those who have seen ads, not just been exposed to them. The next step therefore is to assign a probability that those who are within the visibility areas will actually see the ads.

## Step 4: Determine likelihood of seeing ads



But we don't just accept that because people can see the ad, that they have actually looked at it. We need a measure of those who have seen ads, not just been exposed to them. The next step therefore is to assign a probability that those who are within the visibility areas will actually see the ads. We use data from eye tracking to help quantify this.

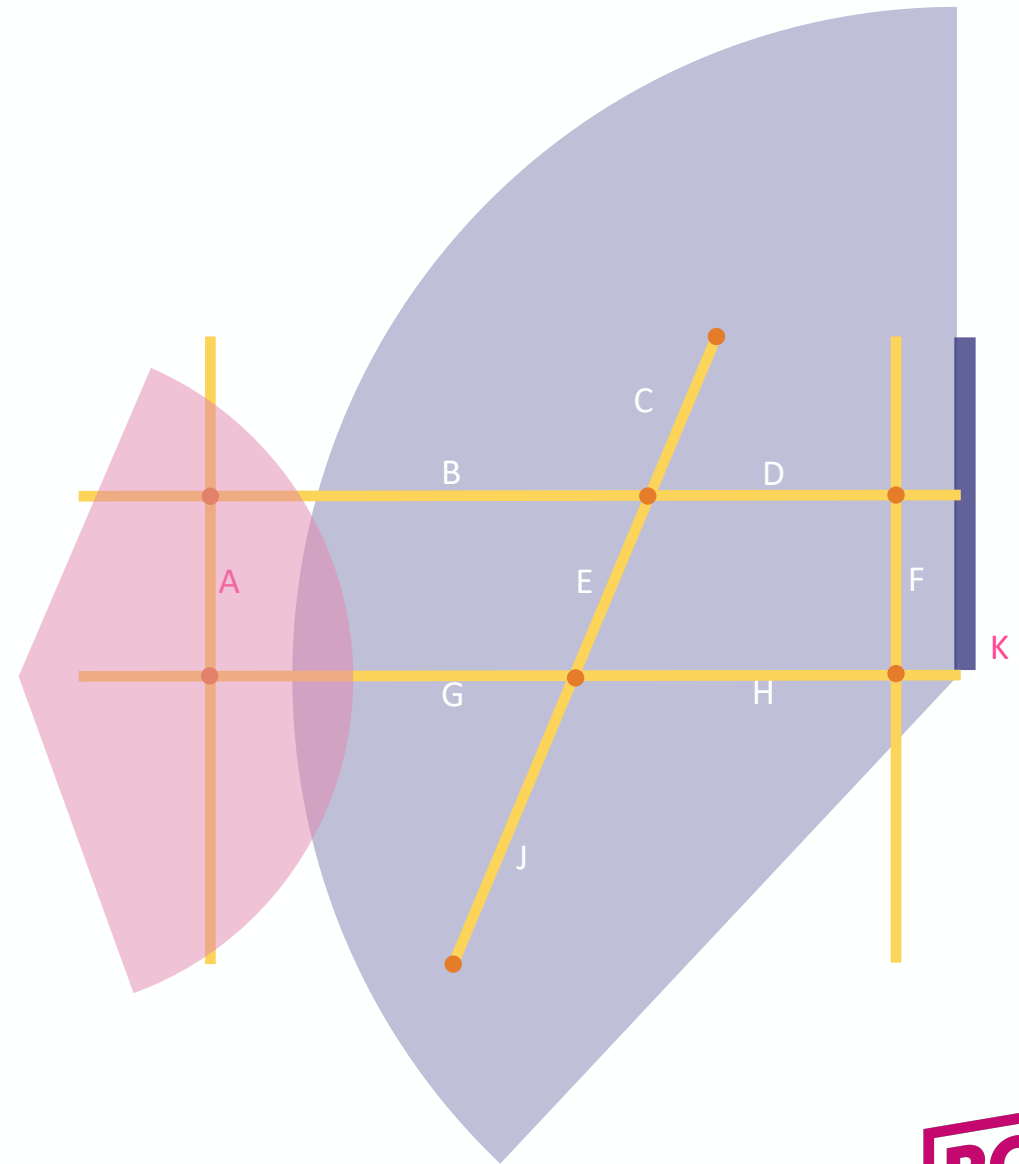


**What affects the likelihood of seeing an ad?**



# 1. Size of frame

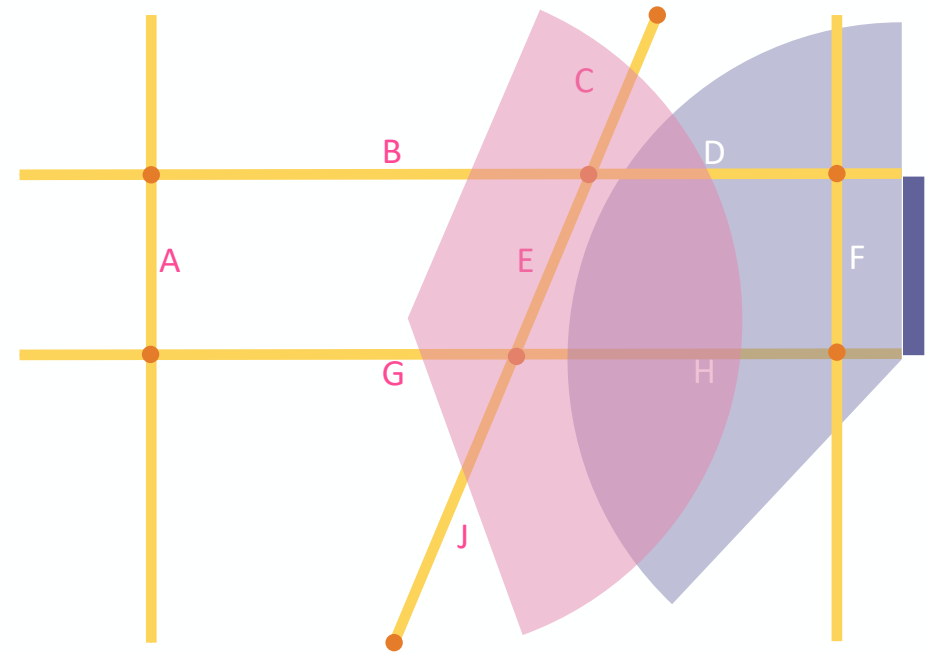
The larger the frame, the larger the visibility area. This in turn means that there is a greater chance that people will be in the visibility areas and spend more time in them. In turn, eye-tracking research has shown that people notice larger objects more quickly than small. Therefore, larger ads have a greater likelihood to be seen.



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## 2. Distance from audience

Broadly speaking, the closer a person is to the frame, the greater the probability that it will be seen. That is, until people are really rather close to it, at which point they focus further away and the probability subsequently drops.





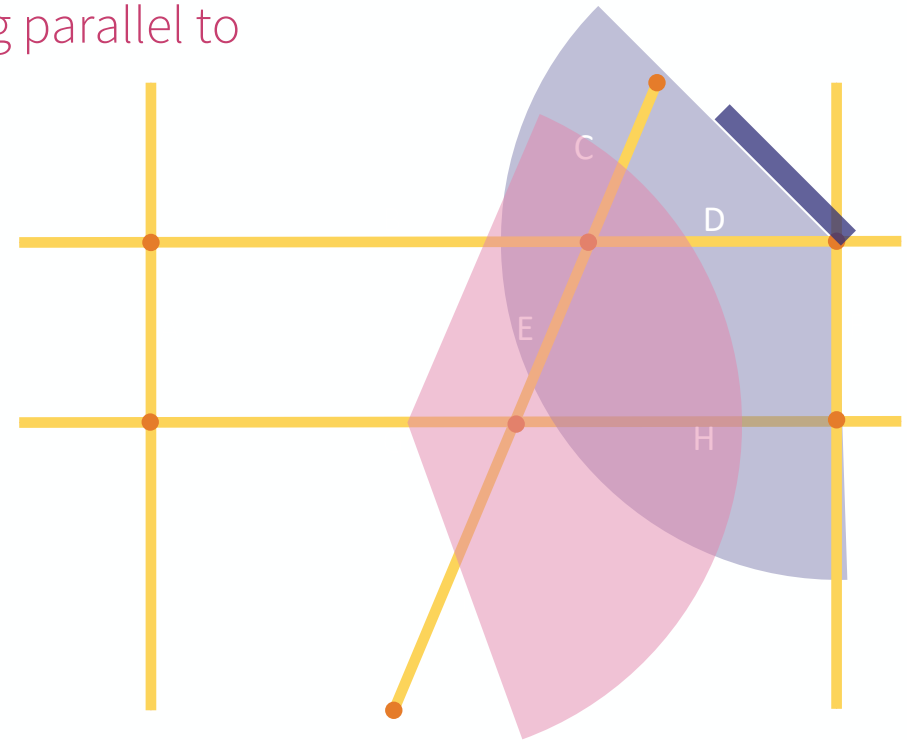
### 3. Offset

People are more likely to notice something that is directly in front of them, rather than something that is offset to the side. The extent to which the frame is set back from the participant affects the likelihood of it being seen.



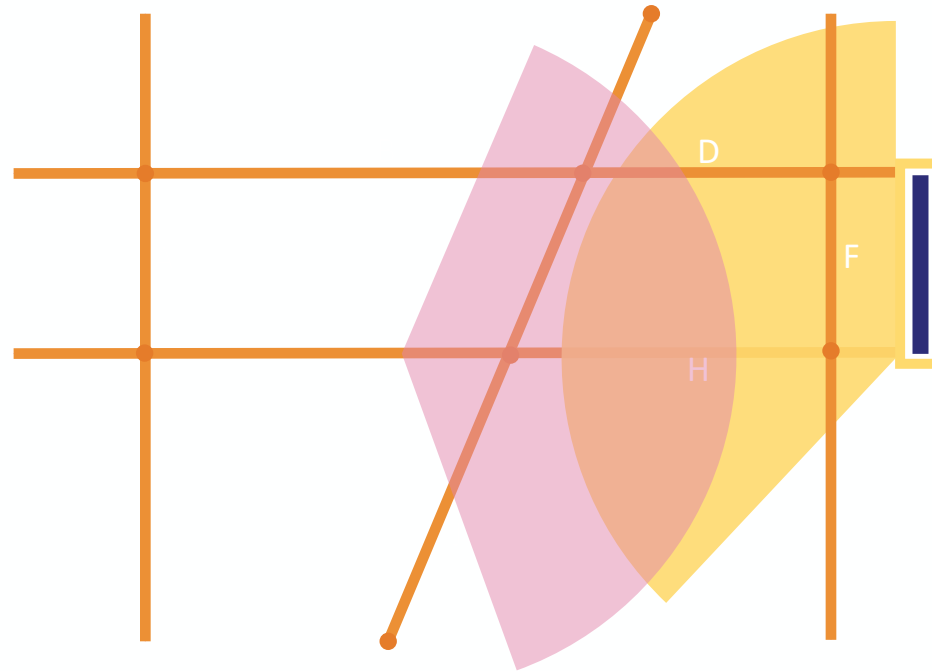
## 4. Distortion

The distortion, or angle at which the poster sits relative to the person will also affect the likelihood of it being seen. The more angled the ad is to the flow of travel, the less likely it is to be seen. Face on ads are most likely to be seen with ads running parallel to the flow of traffic least likely.



# 5. Illumination

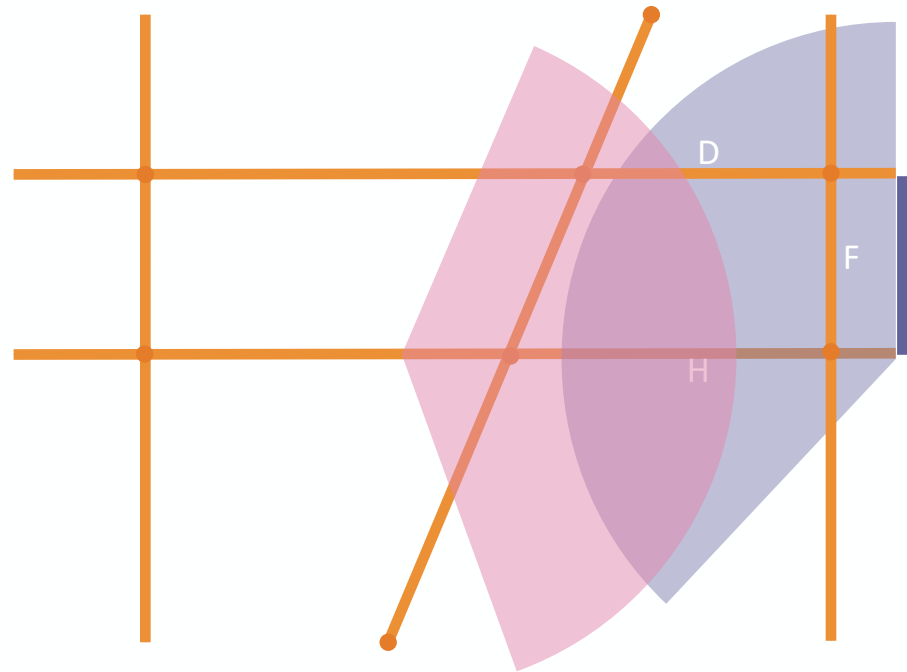
Research demonstrates that ads which are illuminated are more easily seen than those which are not. This is particularly important during hours of darkness.





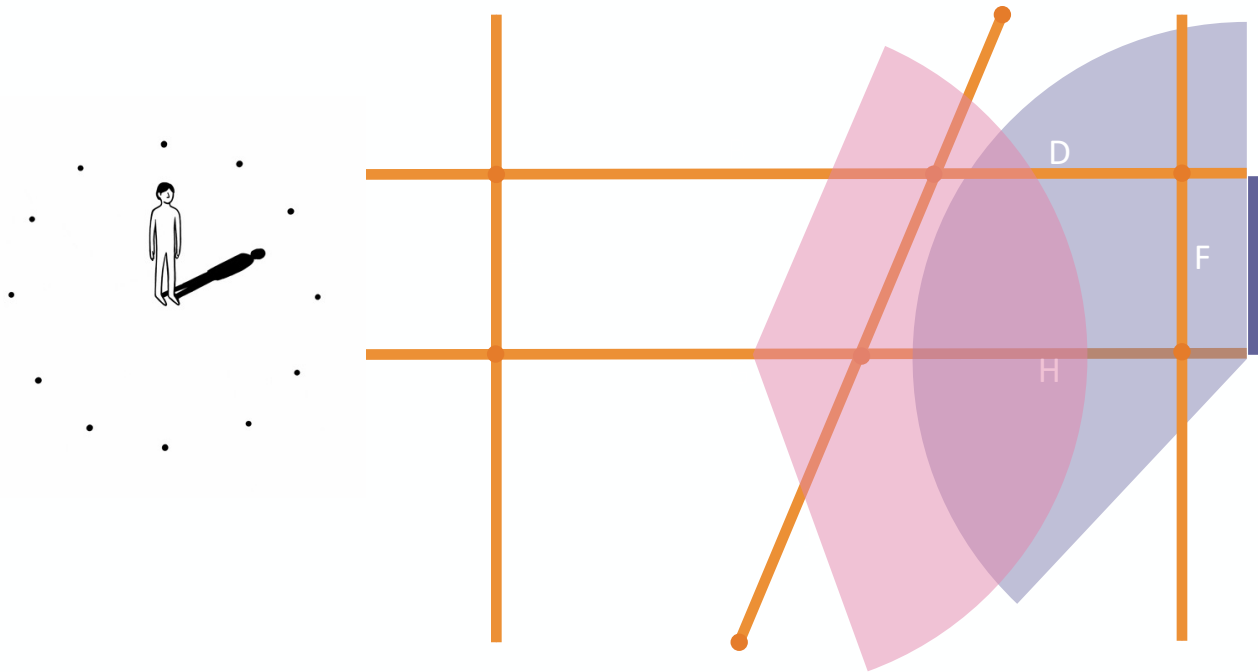
## 6. Does the poster / screen include movement?

Does the ad contain movement? Dynamic advertising is more eye-catching than flat, static imagery. Therefore, ads which move receive a boost in terms of their likelihood to be seen.



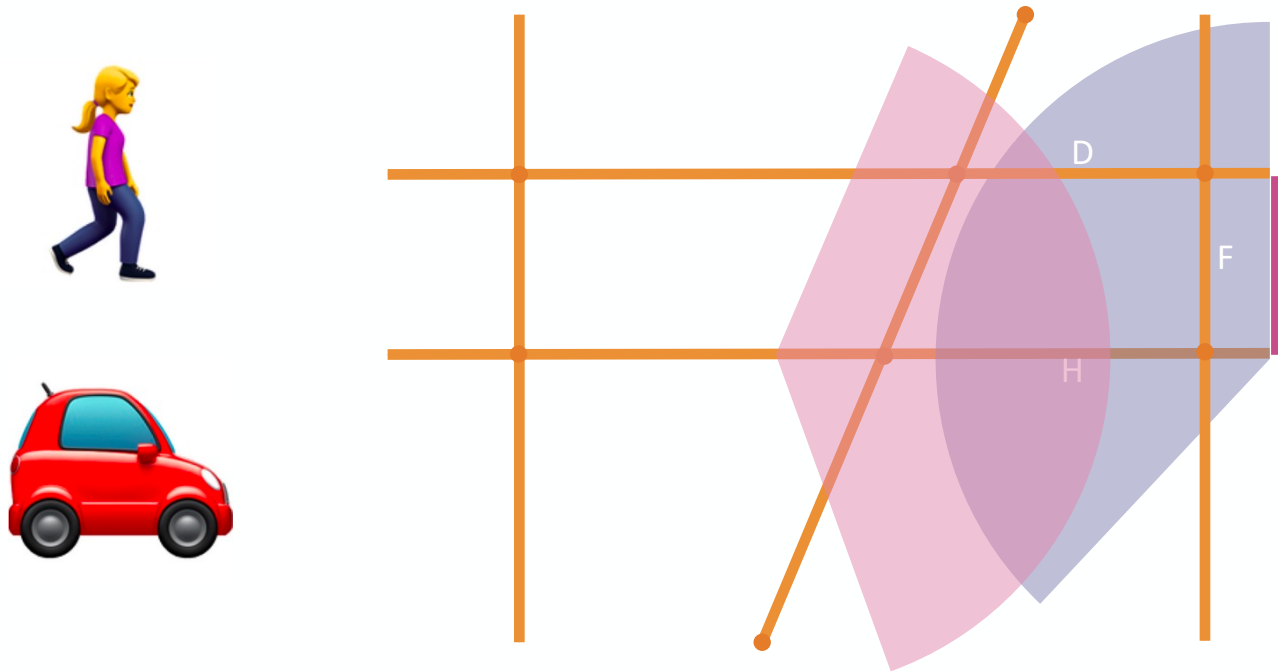
# 7. How long are people exposed for?

The duration of time people spend exposed to the ads increases the probability with which they will notice them. The probability of seeing the ad is recalculated and aggregated for every exposure to a frame at 0.1 second increments.



## 8. How are people exposed?

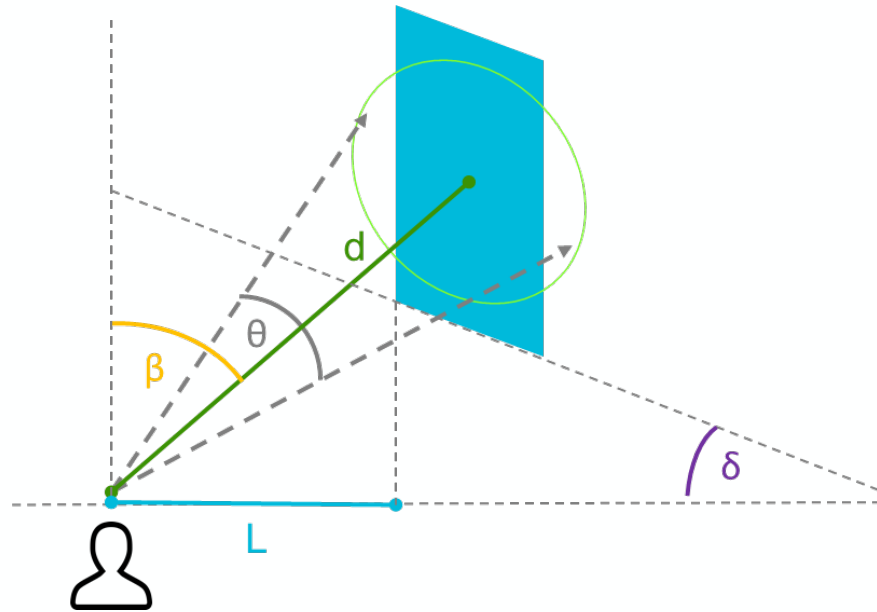
The mode of transport during the exposure has an effect on the likelihood of the ad being seen. Generally, pedestrians are more likely to notice ads than those in vehicles, though drivers looking at the road are more prone to noticing buses and taxis





# The science of visual attention

The geometry of visibility research



$\theta$  = visible angle (degrees)

$d$  = distance (m)

$\delta$  = deflection angle (degrees)

$\beta$  = bearing (degrees)

$L$  = offset (m)

The notational equation of visibility research

Visibility equation:

$$p = 1 - e^{-k\theta}$$

Where  $p$  is momentary hit rate (% view in 0.1")

YOU ACTUALLY  
READ THIS?  
TOTAL SUCCESS.



# What this means for our data?

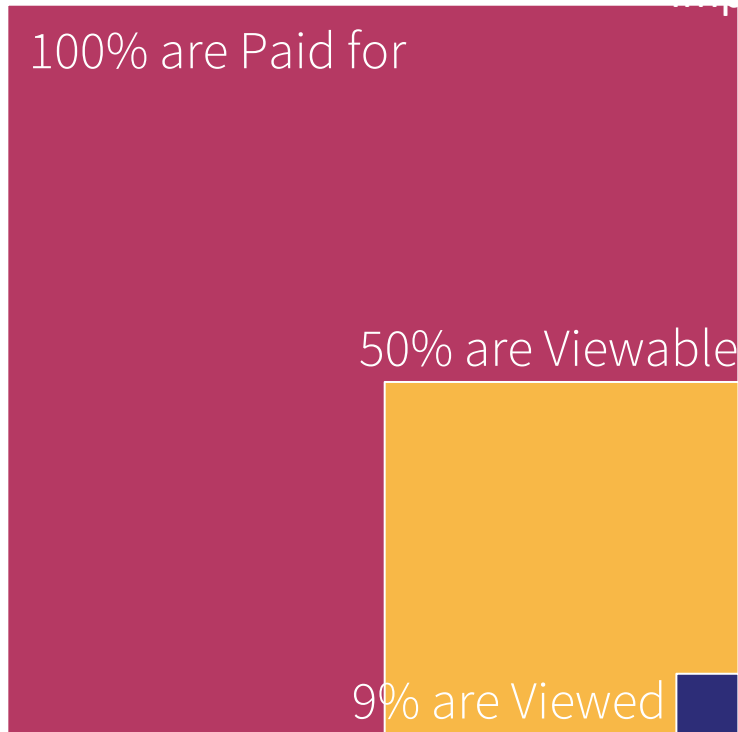
It means you can believe it

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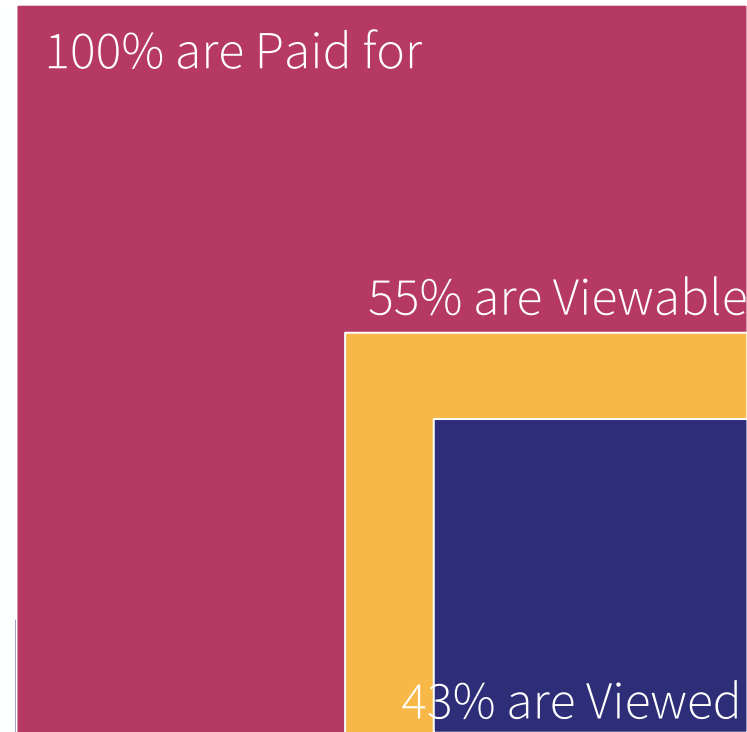
# Impressions over estimate audience by up to 91%

Visibility adjusted impacts are a much better measure of the people actually seeing campaigns

## Online Desktop



## Online Mobile



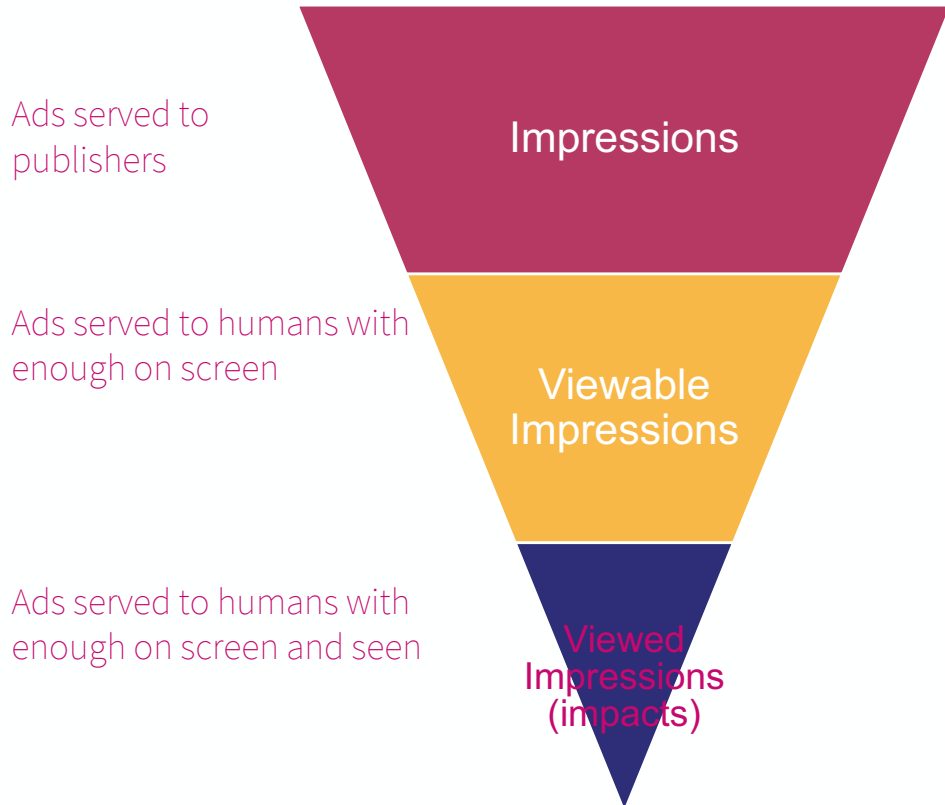
## Out of Home



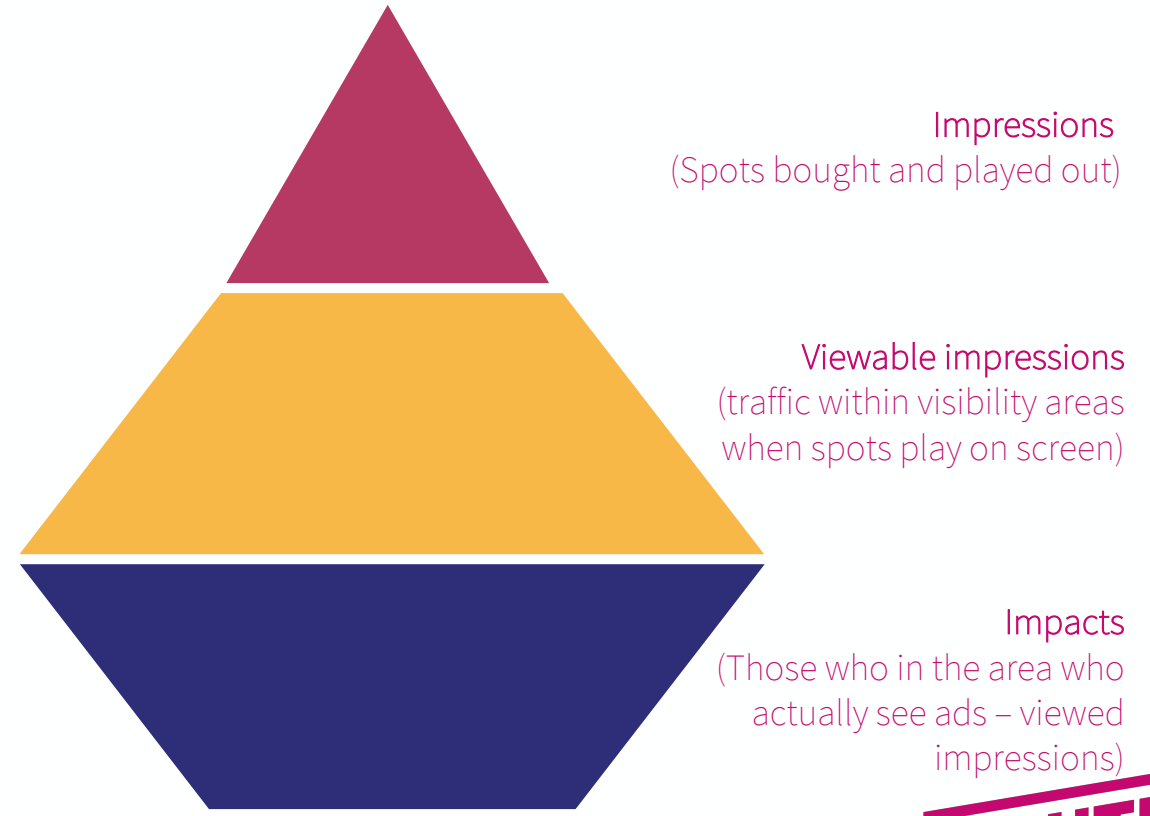
# OOH spots generate multiple impacts.

The the audience funnel is different to that of other media...

One to one medium i.e. online / mobile



One to many medium i.e. OOH





# How is it different?

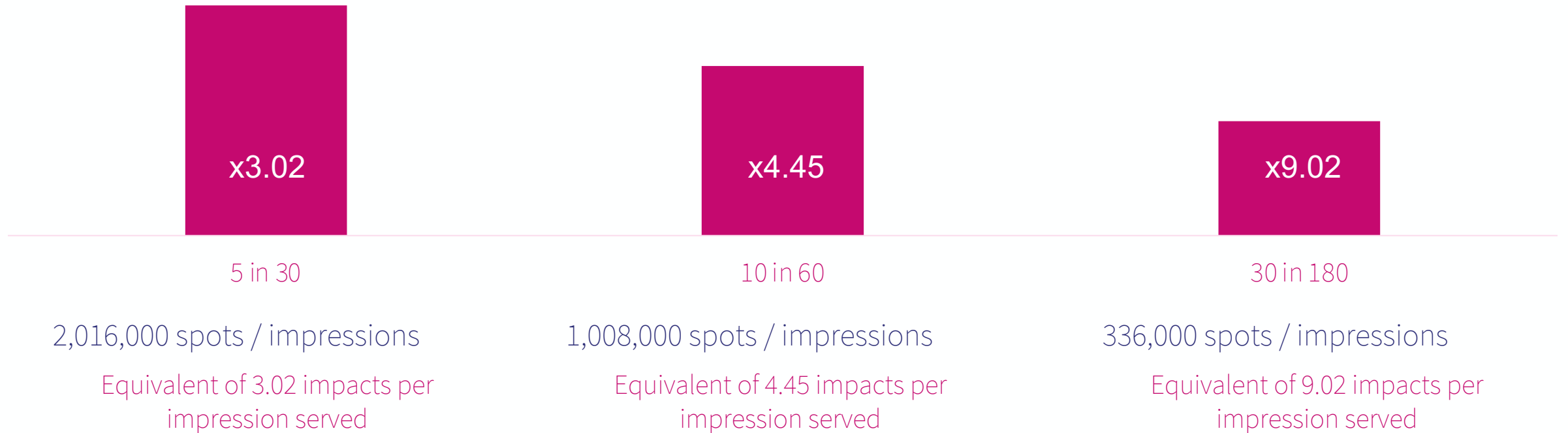
Consider how this may work in practice...

Spot Duration (seconds)	Time between ads (seconds)	Campaign Duration	Share of voice	# of screens	# of spots in campaign (impressions)
5	25	1 week	17%	100	2,016,000
10	50	1 week	17%	100	1,008,000
30	150	1 week	17%	100	336,000

Base: 100 x randomly selected Roadside screens. Campaign spanning 1 week in March.  
Impacts generated by all adults 15+  
Source: Route (Q1 2021)



# Each campaign generates multiple impacts from every spot (impression) bought / served to a screen



Base: 100 x randomly selected Roadside screens. Campaign spanning 1 week in March. Impacts generated by all adults 15+  
Source: Route (Q1 2021)



# Summary

- Impressions are not an adequate measure of OOH audiences
- They better equate to the number of spots within a campaign, or the number of ads playing out on screens
- As a one to many medium, OOH spots (impressions) can be seen by multiple people
- Whereas not all digital impressions are seen
- This means that they have quite different audience funnel trajectories
  - Digital audiences are lower than the impression number
  - OOH ads are higher than the impression (spot) number
- Route's impacts account for this and have visual attention adjustments built in
- They account not just for those who are exposed to campaigns, but rather those who have seen the ads
- This means that Route impacts are the best estimate of actual campaign audience



A close-up photograph of a person wearing a VR headset. A hand is visible at the top, adjusting the top of the device. The person's eyes are wide open, looking upwards, suggesting immersion or surprise. The image has a dark, reddish-pink tint.

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