


Philippa Morgan

Look up

iPhones are killing pedestrians.



**LOOK OUT
BEFORE YOU
STEP OUT**

Look up

Philippa Morgan

It seems like the older generations just love to hate on the iPhone because it's technology that they don't understand. However, the uncomfortable truth is many of us are glued to our devices, so much so that we're used to ignoring all the traffic safety we learnt when we were toddlers. Smartphone-addicted pedestrians are growing at a concerning rate.

The NRMA released a 2019 report titled 'Look Up', detailing the concern of smartphone usage among pedestrians. The report states that in their case study, more than a third (36%) were distracted by their phones while crossing the road. This correlates to a rise in pedestrian fatalities, making up 17% of all deaths on NSW roads. Dimitra Vlahomitros, NRMA Road Safety Expert, discusses the danger of pedestrians using smartphones; "Distracted walking is a form of inattentional blindness and when you undertake this behaviour you are effectively playing chicken with fast moving traffic (...) Almost every Australian owns a smartphone and too many of them are focusing on their screens or blocking out their ability to hear traffic instead of focusing on crossing the road." Vlahomitros further explains that even crossing the road on a device while the light is green is risky, as

it prevents awareness of drivers who don't obey the law.

A study from *'Accident Analysis & Prevention Volume 101'* shows evidence that pedestrians walking while using a smartphone have a deteriorated sense of situational awareness. It was found that 93% of participant's gaze time was spent on the phone during the tests. Another study from *'Applied Ergonomics Volume 81'* in 2019 found in that participants using phones kept their heads steady and had a head flexion angle between 31.1° – 38.5°, resulting in a worsened ability to visually detect occurrences on the road.

The prevalence of this issue has people scrambling for a solution. Currently you can spot 'LOOK UP' signs painted on the pathways of busy crossings. Some solutions aim to make it safer for pedestrians to use their smartphones on the road, while others want to prevent the use of smartphones on the road entirely. In their *'Look Up'* report, the NRMA outlined solutions including refuge islands on large streets, countdown timers, longer walk times and reflective pavement markings. On the other end, the Pedestrian Council of Australia recently called for a \$200 fine for pedestrians using smartphones or headphones on the road.

The NRMA's approach brings up the concern of how compliant we have become to distracting ourselves with smartphones. Rather than just pushing for people to put their phones away, those solutions cater to people's incessant need to be on their phones. A public prank in New York exposed this attitude by sending 'Seeing Eye Persons' into the city for people to hold onto by a leash to see for them while they walked using their smartphones. Many people complied, believing it was a real service.

Apple, with the iPhone being the leading product in the smartphone industry, have taken some steps to prevent time spent on their devices in general, such as the 'screentime' feature showing the amount of time users have spent on their screen, and allows them to set limits on how much time they can spend on apps. However these are reliant on the user being self aware of their usage enough to implement these tools.

Our full attention is needed in order to be a safe pedestrian. These studies show that using smart devices while walking is a deadly issue that is on the rise, and right now not much is being to solve the problem. Although, what can we do?

We all know we use our phones too much, but as a society we've become accustomed to it. Will we be able to stop it, or will we simply resort to hiring "Seeing Eye Persons" to accommodate our usage? This phenomenon shows we need to question how we want the relationship between humans and technology to look like now and in the future.

References:

Author Unknown, 'Smombies' on our streets: NRMA Pedestrian Report | The NRMA. (2019). Retrieved 19 September 2019, from <https://www.mynrma.com.au/community/news-and-media-centre/nrma-pedestrian-report>

Haga, S., Sano, A., Sekine, Y., Sato, H., Yamaguchi, S., & Masuda, K. (2015). Effects of using a Smart Phone on Pedestrians' Attention and Walking [Ebook] (1st ed., p. 5). Tokyo: Elsevier. Retrieved from <https://www.sciencedirect.com/science/article/pii/S235197891500565X#!>

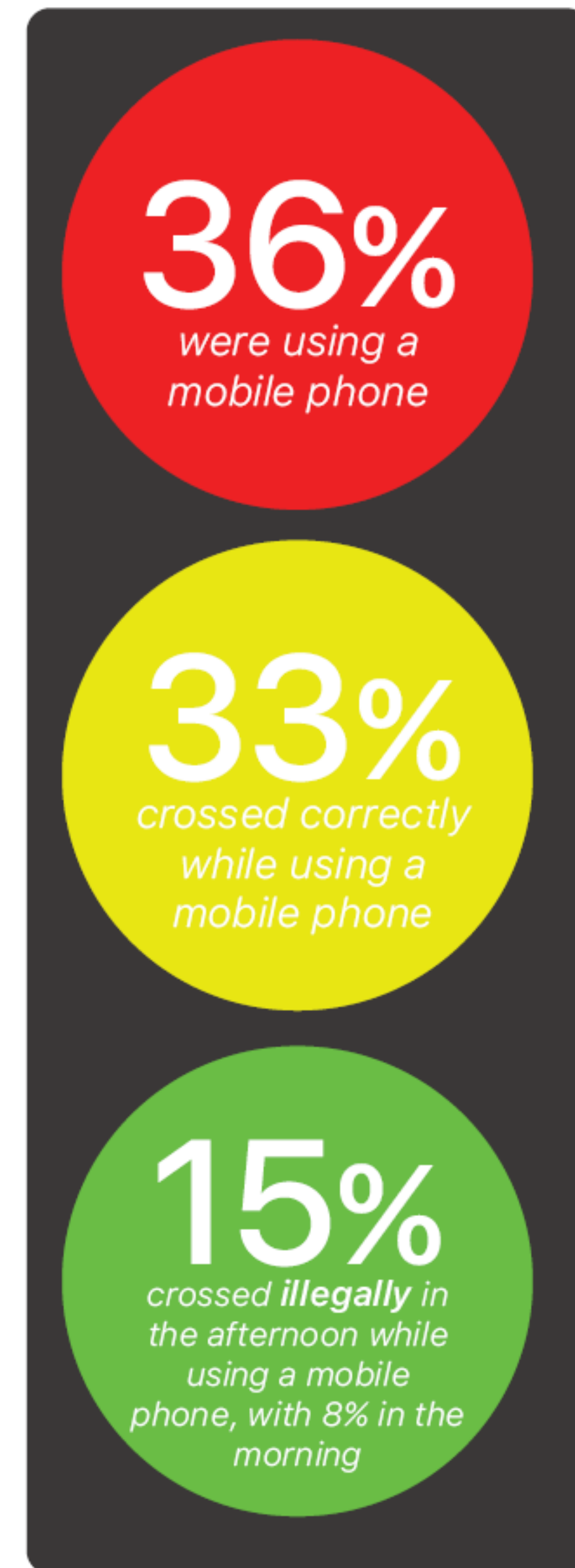
Lin, M., & Huang, Y. (2017). The impact of walking while using a smartphone on pedestrians' awareness of roadside events. Retrieved 19 September 2019, from <https://www.sciencedirect.com/science/article/abs/pii/S0001457517300556#!>

Han, H., & Shin, G. (2019). Head flexion angle when web-browsing and texting using a smartphone while walking. Retrieved 19 September 2019, from <https://www.sciencedirect.com/science/article/pii/S0003687019301164>

Jaffrey, B. (2019). On your phone while crossing the road? That could be \$200. Retrieved 19 October 2019, from <https://www.theleader.com.au/story/6257934/on-your-phone-while-crossing-the-road-that-could-be-200/>

NRMA Observational Study

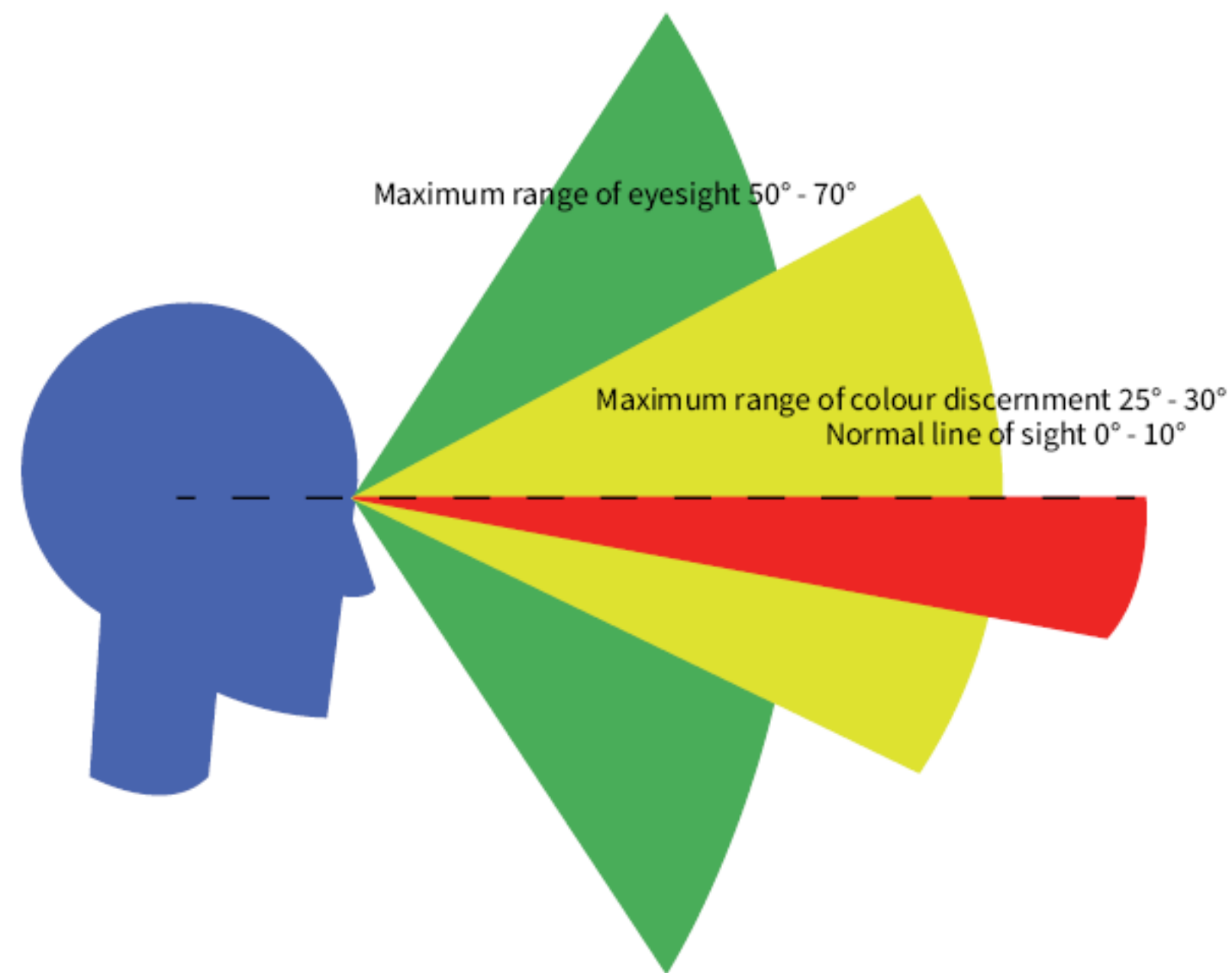
April/May 2019 - Sydney/Parramatta, 36 Hours, 26390 Pedestrians



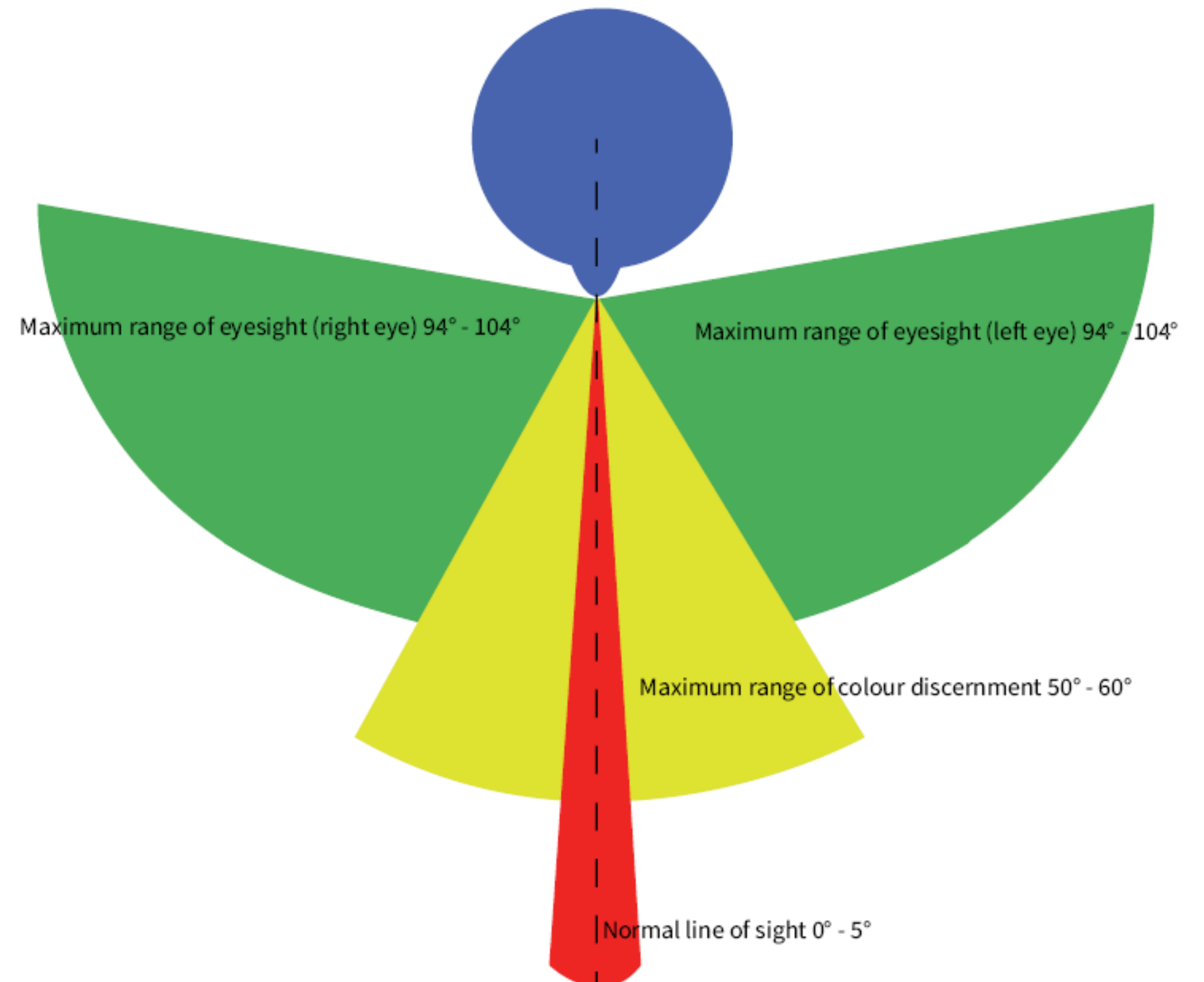
Reference:

NRMA. (2019). Look Up [Ebook] (1st ed., p. 5). Strathfield.
Retrieved from <https://www.mynrma.com.au/community/corporate-information/reports-and-submissions>

Visual Range of the Human Eye



Vertical View

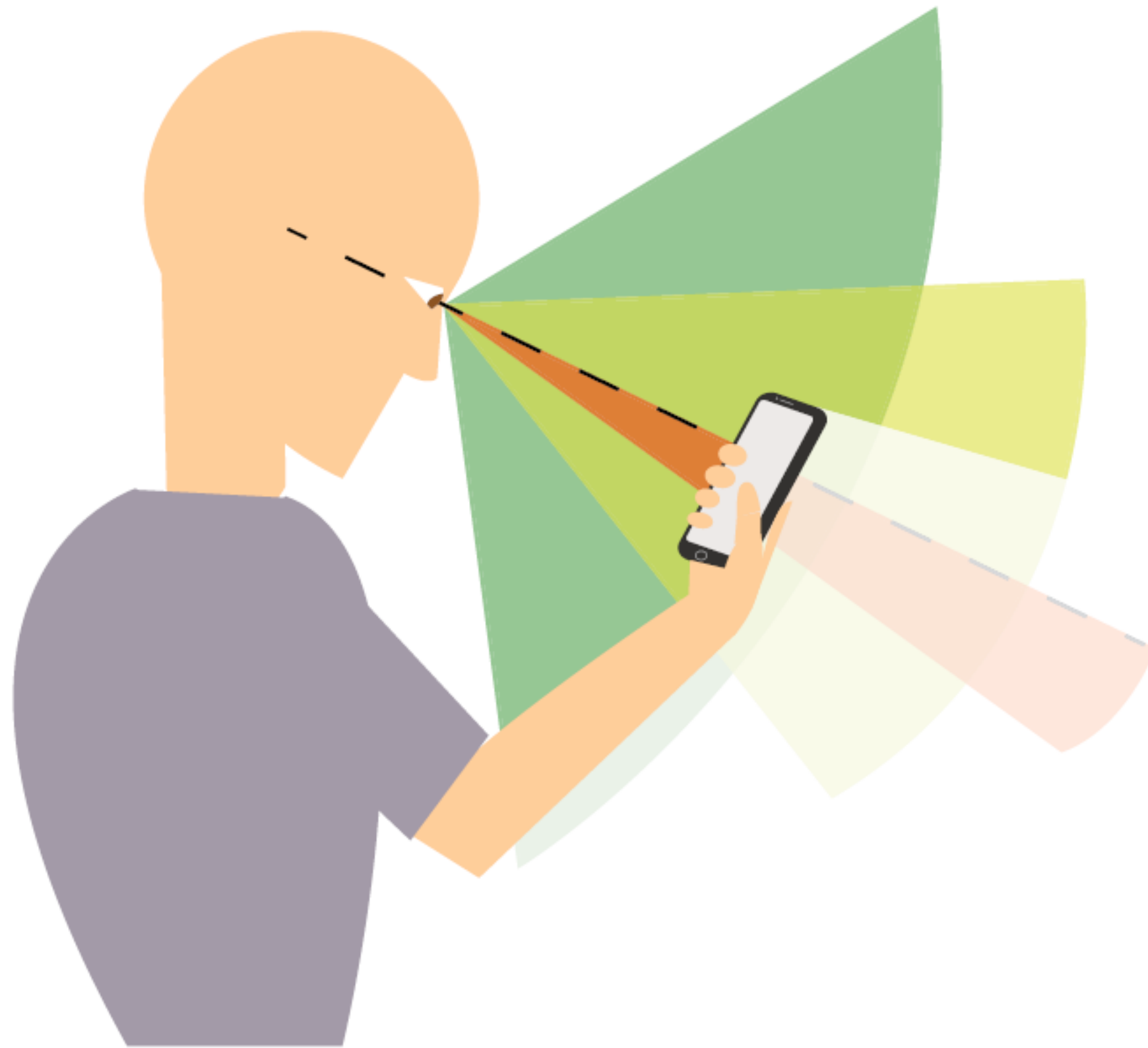


Horizontal View

Reference:

Sidorakis, N. (2015). Employing Binocular Eye Tracking for the Control of a Custom-made Immersive Multimedia User Interface (MUI) in Unity3D [Ebook] (1st ed., p. 20). Chania: Unknown. Retrieved from https://www.google.com.au/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&ved=2ahUKEwjNr6Wj9KfIAhWH73MBHS-WBeAQjhx6BAgBEAI&url=http%3A%2F%2Fdias.library.tuc.gr%2Fview%2Fmanf%2F31692&psig=AOvVaw3cuU07UV_dKBq17mA55gQS&ust=1571557410729395

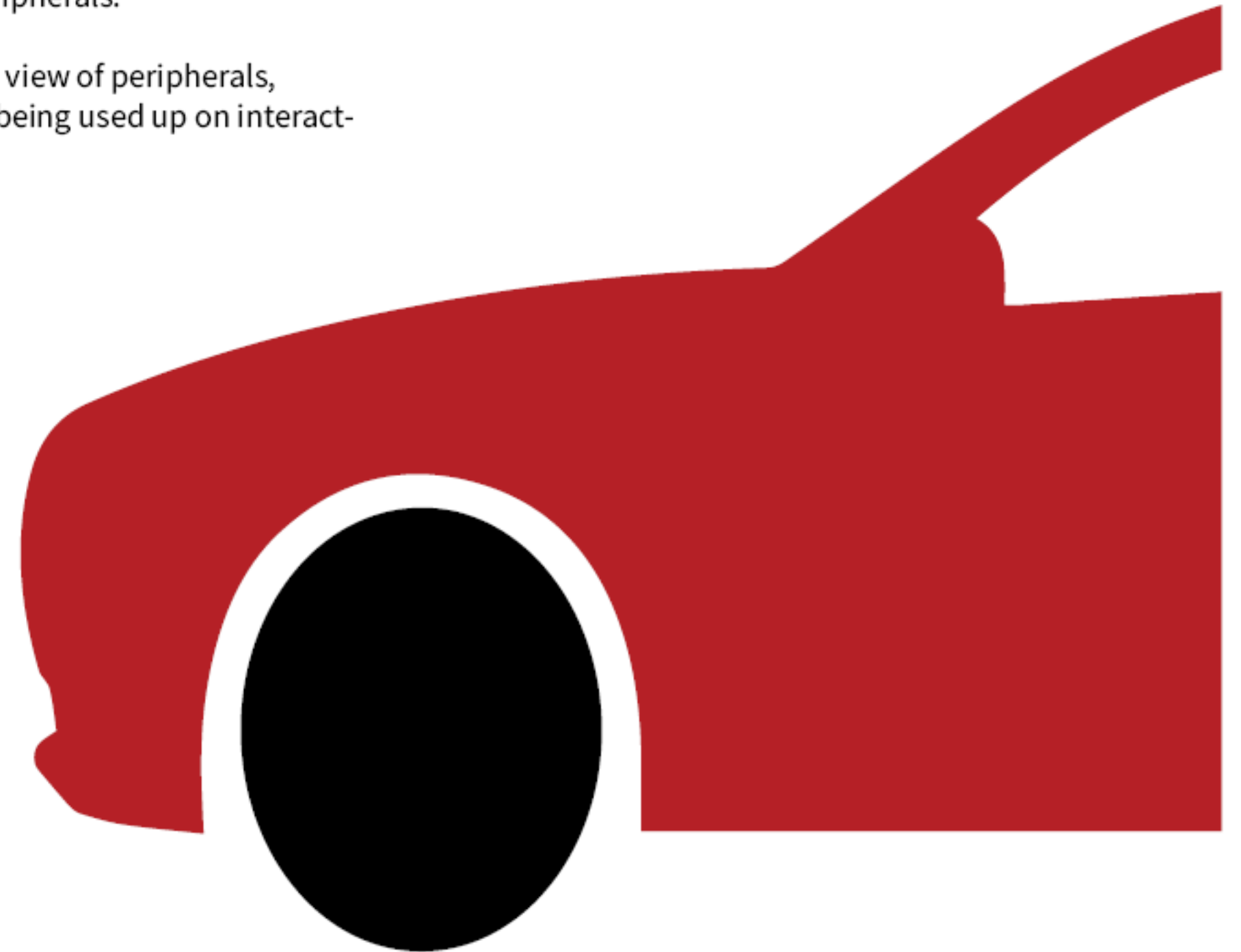
The Science of Distracted Pedestrians



-Head is fixed at a flexion angle of 31.1° – 38.5° .

-Line of sight is focused on the phone; danger is only visible in peripherals.

-Even if danger is in view of peripherals, brain's attention is being used up on interacting with the phone.



Reference:

Han, H., & Shin, G. (2019). Head flexion angle when web-browsing and texting using a smartphone while walking. Retrieved 19 September 2019, from <https://www.sciencedirect.com/science/article/pii/S0003687019301164>