

# iSight: New Ways of Seeing

How has Apple's accessibility features revolutionised new ways of seeing for those with vision impairments?



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Ever since the iPhone was released in 2007, Apple has completely transformed the way we communicate, connect with others, and navigate throughout our daily lives. The overall look and feel of the iPhone itself have had many aesthetic changes over the last 15 years – with slimmer designs, UI upgrades, widgets, and differing body materials to name a few. But for many visually impaired users, these updates are minuscule compared to the continual impact and improvements of Apple's accessibility features.

The latest publication of the World Health Statistics 2020, provided by the World Health Organization, reports that approximately **2.2 billion** people across the globe experience a near or distance presenting vision impairment. To put it simply, **distance vision impairment** is split into four categories, which extends from mild (little vision loss) to blindness (complete vision loss). **Near vision impairment**, however, is based on the difficulty of reading an eye test chart. With an increase in both population



growth and ageing, the number of people that will develop vision impairment is expected to increase. Consequently, the need for additional support will become more in demand, and the use of technological accessibility features need to accommodate these various points of view.

In the beginning, the very first iPhone provided no accessibility features for their users. This caused a lot of dismay for those with disabilities, as it felt like they were shut off from the rest of the world who were experiencing this exciting, new device. It wasn't until 2009, with the release of the iPhone 3GS, when three new accessibility features for visually impaired users were announced – **VoiceOver**, **Zoom**, and **White on Black**. Let's take a look the progression of these, and how they've made a difference around the world.

VoiceOver to this day, is one of the most impactful features. It was the first screen reader that when enabled, would speak, and tell the user what was happening on the device.

Throughout its developments, VoiceOver can describe people, object, texts, and graphics in exceptional detail, and can even do so in braille. There are now dozens of various voices that can be selected, and it is available in more than 60 languages. Today, all Apple products have VoiceOver installed, which means someone who is visually impaired, or blind can easily use the device straight out of the box.

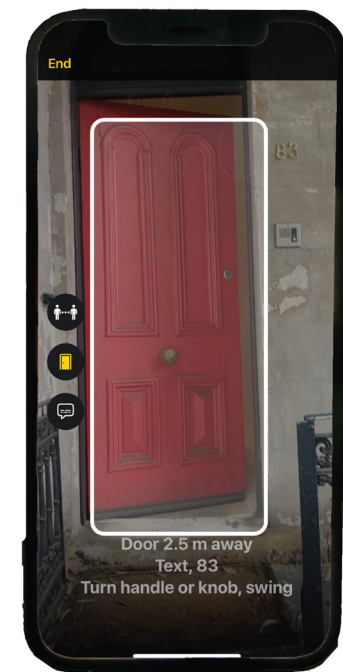
The Zoom feature released with the iPhone 3GS, simply magnifies the screen, allowing the user to enlarge the content. Over time, this has better connected with VoiceOver, and lead to the development of increasing text size using a slider. Initially, the Larger Text feature was only available for some apps, but nowadays users can change the entire display to suit them, by adjusting the size, contrast, and boldness of text. Originally called White on Black, this feature progressed into Invert Colours from iOS6, which is essentially a similar version of dark mode. Low vision users who have a

sensitivity to light, can invert the screen image to make it easier and more comfortable to view.

Various magnification apps have been around for some time, but the Magnifier feature itself became available in iOS 10 and could be accessed quickly through the Control Centre. It acts as a digital magnifying glass, using the camera to enlarge the size of anything you point at it. In recent updates, the Detection Mode in Magnifier has provided users with incredible tools including people detection, door detection and image descriptions.

Back in 2013, the CEO of Apple, Tim Cook said, "People with disabilities frequently are left in the shadows of technological advancements that are a source of empowerment and attainment for others". He added, "We design our products to surprise and delight everyone who uses them. We do it because it is just and right, and that is what respect for human dignity requires, and it's a part of Apple I'm

especially proud of." It is evident that even since then, Apple has upheld these views. The development of the iPhone continues to provide game-changing accessibility tools for those living with vision impairments, and Apple should be commended for their inclusive designs.



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Number Affected by Type of Vision Impairment, Global, 2020

