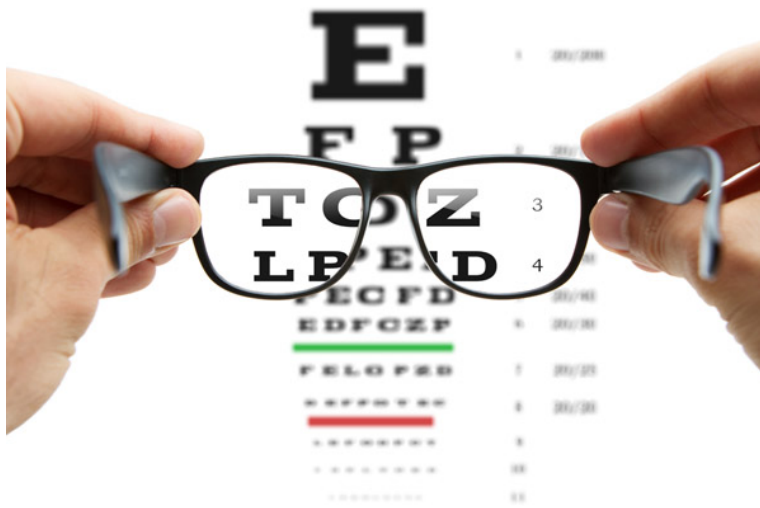


The Myopia Epidemic: Transforming Eyewear E-Commerce

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Uncorrected poor vision is the world's largest unaddressed disability. In 2018 the WHO (World Health Organization) estimated, of the global population of 4.7 billion, 1.5 billion suffer from myopia and projected that in 2050, 2.2 billion people will suffer from myopia absent further preventive measures.

So it makes sense that the global corrective eyewear market was estimated at \$147 billion in 2020 and is expected to grow at a CAGR (compounded annual growth rate) of 8.5% from 2021 to 2028¹ as the world's eyesight continues to deteriorate.

What is Myopia?

Myopia is impaired vision in people, when close-up objects look clear but distant objects are blurry. Myopia is the rapid elongation of the eyeball which leads to blurred vision of far away objects. It is generally detected in children before the age of 10 and can occur earlier, as young as 3 to 4 years old².

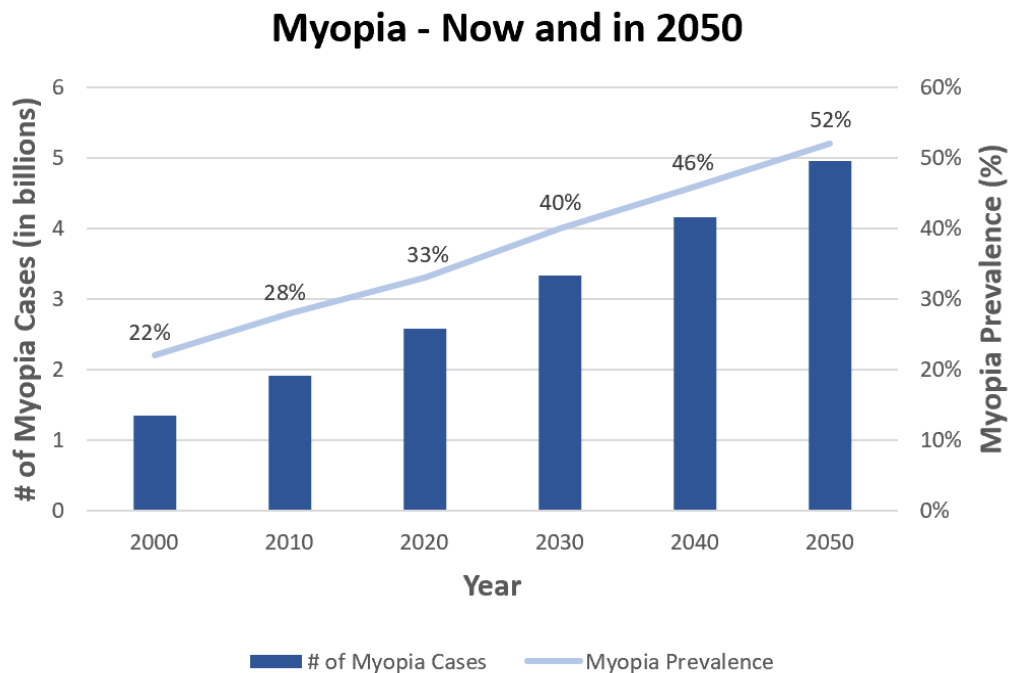
Myopia is becoming the leading cause of permanent blindness worldwide, as it greatly increases the occurrence of debilitating diseases like cataracts, glaucoma and retinal detachment, which can all lead to blindness.

¹ [Eyewear Market Size & Trends Analysis Report 2021-2028](#), Grand View Research, January 2021

² [IMI Impact of Myopia. Investigative Ophthalmology & Visual Science](#), April 2021

The Silent Epidemic

The widespread presence of myopia has become so high that it has become an epidemic. The WHO has projected the global prevalence of myopia to increase from 28% of the world's population in 2010 to 52% by 2050.



Source: The Impact of Myopia and High Myopia, World Health Organization 2015

Major hot spots are East and SouthEast Asia where South Korea, Taiwan, Singapore, China and Japan have incidences of myopia at 80-90% of the population³. The U.S. is reported at 42% of the population, almost doubling over the last 30 years⁴.

Socio-economic Impact

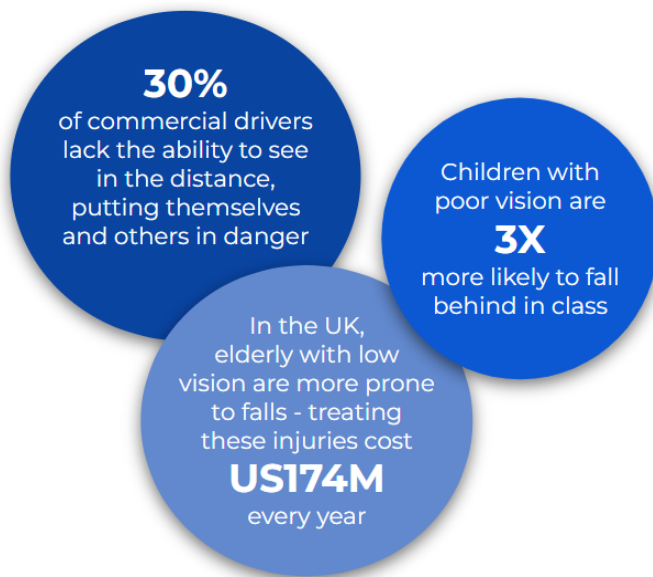
Myopia and vision impairment cause productivity losses and increased health costs globally, with the WHO estimating myopia's global financial impact to be \$244 billion⁵. Children with poor vision or uncorrected vision experience negative academic performance, poor attention and lack of perseverance⁶.

³ Prevalence of myopia, Investigative ophthalmology & visual science, 2012

⁴ Increased prevalence of myopia in the US 1971-1972, 1999-2004, Archives of Ophthalmology, 2009

⁵ [Blindness & Visual Impairment](#), the WHO, October 2021

⁶ [IMI Impact of Myopia, Investigative Ophthalmology & Visual Science](#), April 2021

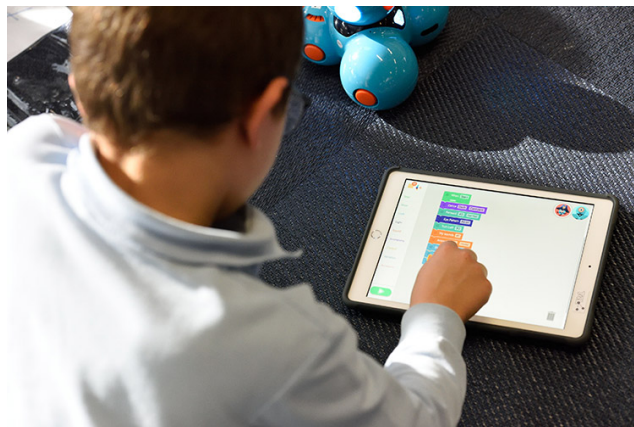


Correcting vision impairment for children leads to better test scores and improved academic performance because 80% of all learning occurs through vision. For adults, correcting vision with eyeglasses advances socio-economic development, improves literacy rates, increases workforce productivity and improves multiple components of quality of life (eg: social, emotional, activities).

Source: [Eliminating poor vision in a generation](#), Essilor SAS 2020

Myopia Causes - Increased Screen Time!

There is evidence that myopia is caused by genetics, environmental factors such as decreased time spent outdoors and increased screen time. As children and adults spend more and extended periods of time on screen based devices such as smartphones, tablets and computers, an increasing proportion of the population is experiencing digital eye strain, increasing the risk of developing myopia⁷.



⁷ [With childhood myopia rates on the rise...](#), American Optometric Association, March 2019

Myopia Increasing The Demand for Eyewear

With the WHO projection that 52% of the global population or 4.9 billion people will have myopia by 2050⁸ - myopia is having a major growth effect on the large vision correction market where RX spectacles will capture the majority of the volume increase.

Only 9% of RX eyeglasses are sold through e-commerce, notably underpenetrated versus other retail categories such as electronics (53%) and clothing and accessories (38%)⁹. Increased technology applied to eyewear e-commerce, such as AR (augmented reality) virtual try-ons, 3D facial measurements providing customized fit, telemedicine online eye exams, instant re-order and shipping directly to the consumer will continue to drive greater market share gains.

Eyewear e-commerce is gaining mind and market share over brick & mortar retail sales. That's why we invested in Fitz Frames, an early stage direct-to-consumer (D2C 3D printed eyewear manufacturing company that designs and produces custom fit eyewear that are affordably priced. Fitz offers a mobile phone or tablet based app with a patented facial mapping technology that takes thousands of measurements in seconds. The technology offers a virtual try-on feature, ordering capabilities in the comfort of your home and shipping directly to you in one to two weeks. This highly customized fit is winning customers, especially in Fitz's core target market segment, children. As the myopia epidemic increases, the eyecare industry must continue to adapt and evolve to provide efficient and cost effective solutions. Fitz meets that mold, having a disruptive technology driven solution that can grow through targeting the underpenetrated D2C channel along with entering and gaining market share of the very fragmented retail and eyecare professional market.

About *non sibi* ventures

non sibi ventures is a Seed and Series A venture capital fund investing primarily in U.S. based startups led by underrepresented founders offering technologies that have a positive impact on citizens, communities, culture or the environment. We look for the best investment opportunities regardless of technology and application but lean towards sectors and solutions where we have domain expertise including 65+ years of combined experience in mobility, sustainability, industry 4.0 and education.

⁸ [The Impact of Myopia](#), The World Health Organization, March 2015

⁹ [Percentage of eyewear sold online in the US in 2019](#), Statista, Dec. 2021; Warby Parker Investor Day