AR: THE TIPPING POINT

Jason Hartlove

Vice President PRISM, Meta

October 13, 2026

Milan

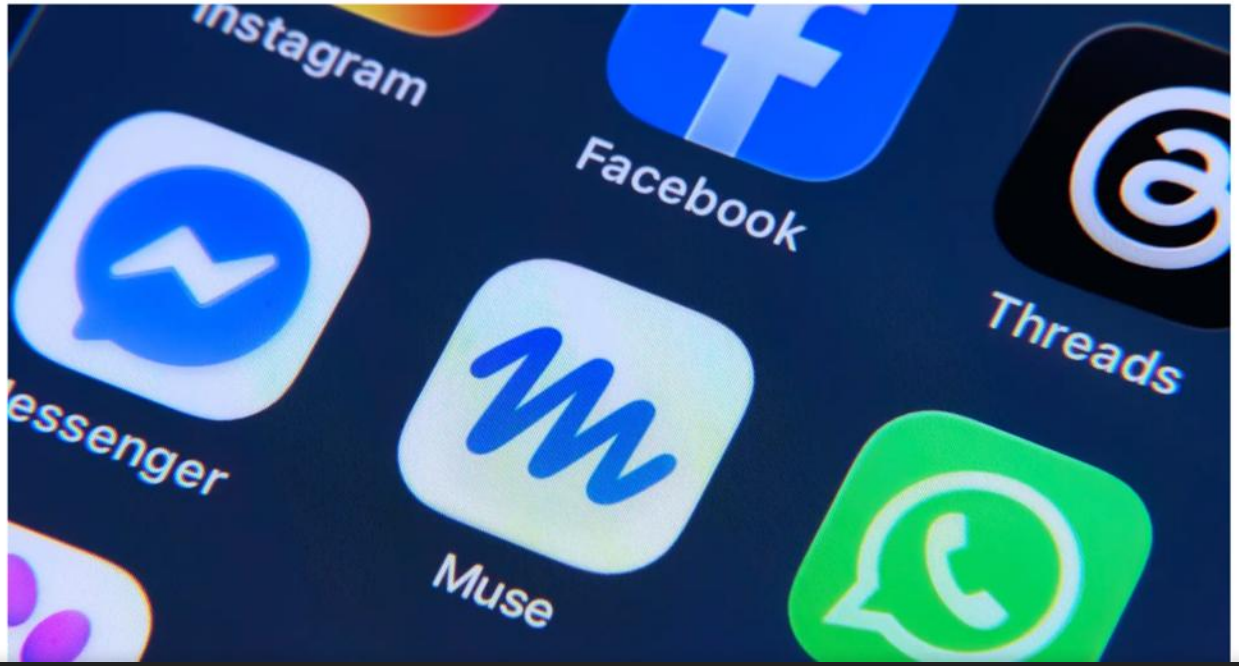
EPIC
EUROPEAN PHOTONICS INDUSTRY CONSORTIUM

Meta

BUSINESS INSIDER

Meta's personal AI agent Muse soars to the top of the App Store

By Georgia Hennessy + Follow



The Prescription Eyewear Market Is a good proxy for our total potential market

2–4 Billion

People Globally

Estimated number of individuals worldwide with some form of vision impairment.

2 Billion+

Pairs Sold Annually

The global volume of prescription glasses and frames sold every year.

80 Million+

VSP Members

Glasses wearers covered by VSP, the largest prescription insurance provider in provider in the US.

$251

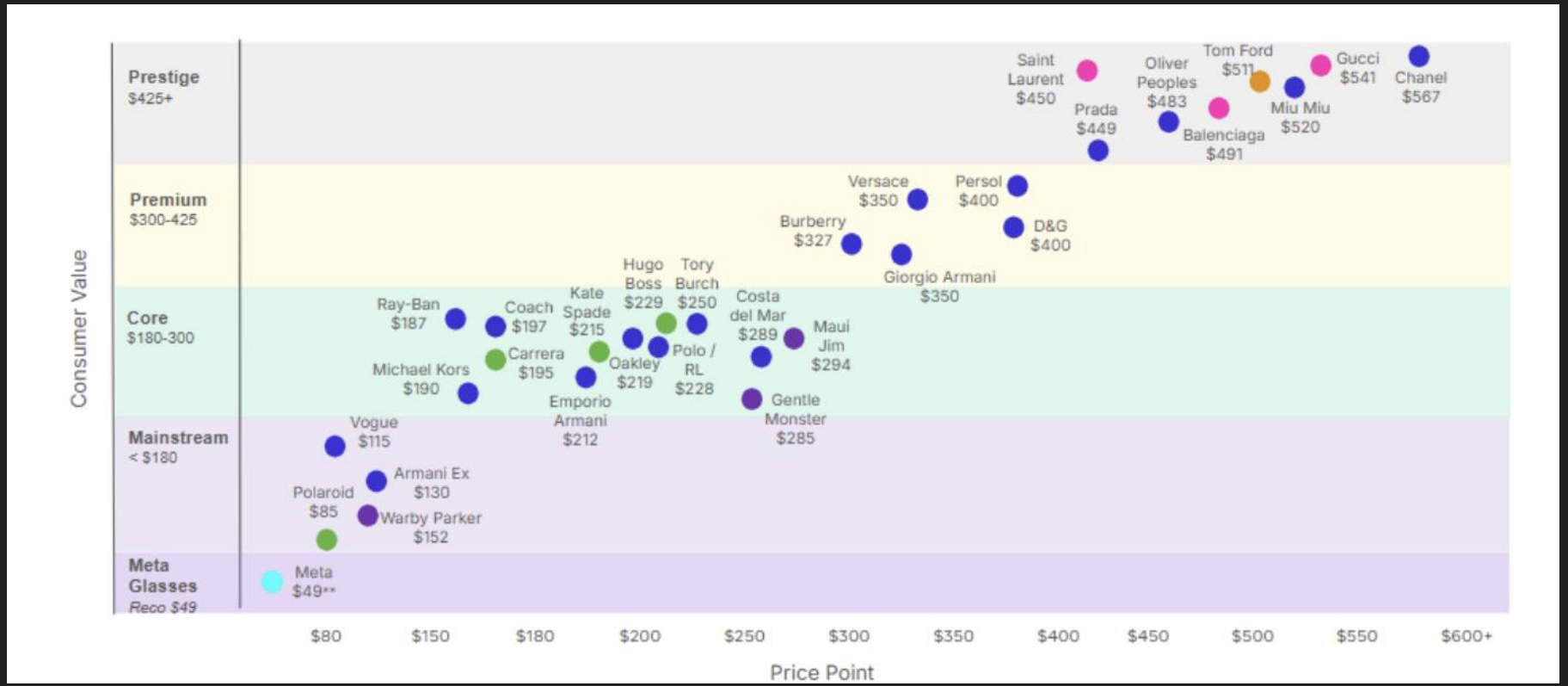
Average Frame Price

The average price for a pair of eyewear frames in 2026, based on VSP

The Market Proxy: The global prescription eyewear market provides the best starting point to model price-demand sensitivity and to pay for AI Display Glasses.

Source: https://www.vspdirect.com/our_plans, https://www.statista.com/outlook/cmo/eyewear/worldwide

Illustrative Average Retail Prices for Analog Frames



Generated by AI using LC.com, SGH.com and other public sources. Priced based on MSRP

Retail Frame Prices Span from near $0 to $1000+

Wide Price Variance

Retail prices for analog frames vary widely, from very low for simple wireframes to over $1000 for premium, fashion products. Each tier offers a unique value proposition.

The Baseline Metric

While exact distribution data is unavailable, the **$251 average price** provides a solid starting point to analyze market price sensitivities.

Source: Overnight Glasses "Eyewear Industry Statistics and Facts [2025], Published May 17, 2023, Updated Feb 25, 2025 (https://www.overnightglasses.com/eyewear-industry-statistics/)
"What Is The Average Cost of Prescription Glasses Without Insurance?" (Updated For 2025) (https://valuvision.com/how-much-are-eyeglasses-without-insurance/)

The Law of Demand: A Downward-Sloping Price-Demand Curve

The Law of Demand

As price increases, demand decreases. A $1000 price point point yields very low demand, while giving the product away product away results in 100% demand.

The $251 Average

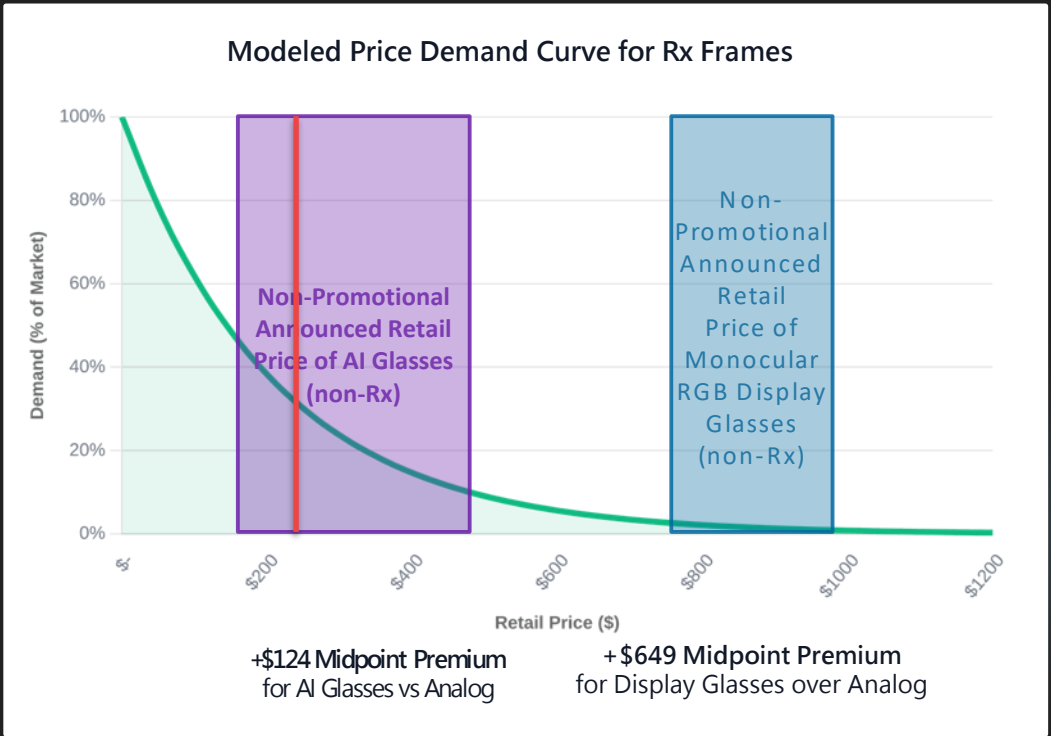
At the $251 average price point, approximately **30% of the market** would purchase the product.

A Price-Weighted Distribution

Because this is a price-weighted distribution, the buyers below the $251 average is significantly higher above it. This counters the intuition that 50% would buy average price.

Santorini
Island in Greece
Picturesque island
in the southern
Aegean Sea

Current AI Glasses Offerings Sit in a Price-Inelastic Zone



AI Glasses Premium

Non-display AI glasses carry a **+$124 midpoint premium** over average Rx frames, pushing them further down the demand curve.

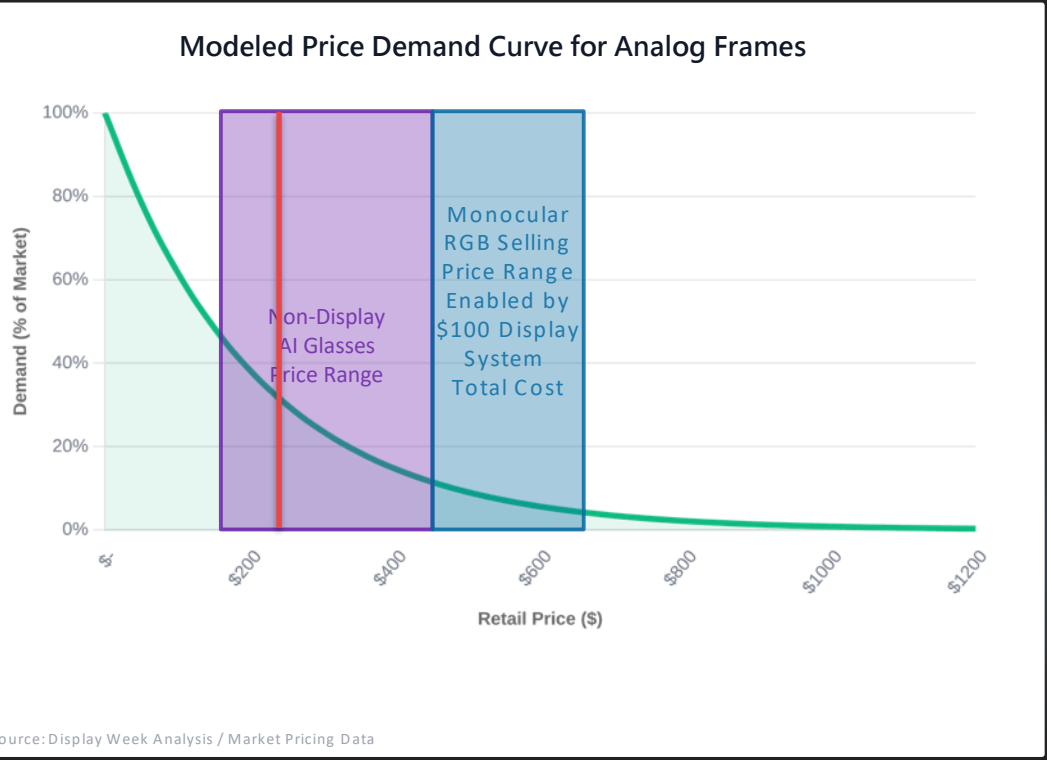
Display Glasses Premium

Adding a monocular RGB display adds a massive **+$649 premium**, placing these devices in highly price-inelastic zone with minimal mass-market demand.

The Challenge to Scale

Current pricing models for display glasses severely limit market market penetration. To scale, the industry must fundamentally fundamentally rethink the cost structure of the display system. system.

An Incremental $100 Display Cost Per Eye Unlocks ~10% of the Market



Source: Display Week Analysis / Market Pricing Data

The $100 Target

Reducing the fully loaded cost of the RGB display system to $100 narrows the premium gap significantly, bringing the retail price closer to the average.

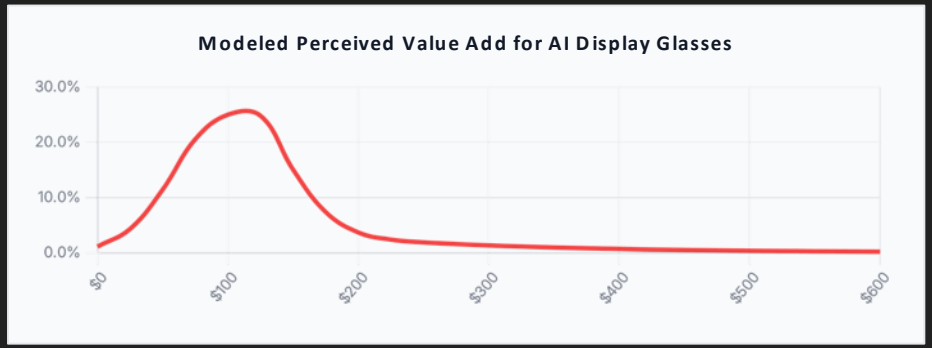
Unlocking 10% of the market

At this price point, the display system enables a retail price that intersects the demand curve at approximately **10% of the market**.

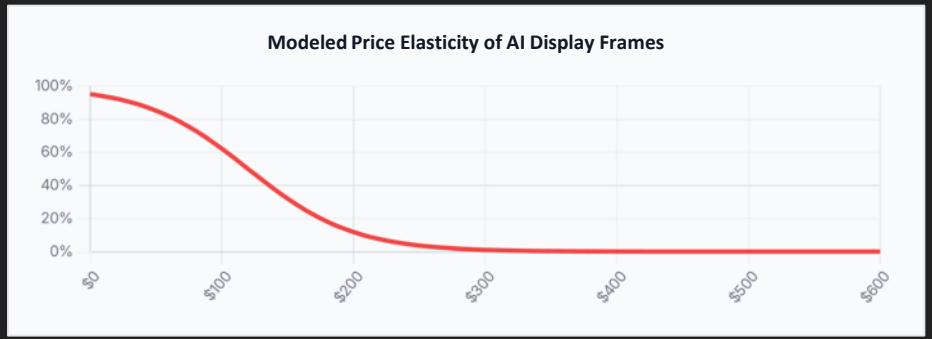
The 200M Unit Opportunity

Capturing 10% of the 2 billion+ unit global eyewear market represents a **200 million annual unit opportunity**, creating the the largest new display market since the smartphone.

Perceived Value Benchmark: The ~$190 Midpoint



Product Category	Price Range
Smart Watch	$20 - $250+
12MP Sports Camera	$20 - $200+
Ear buds	$20 - $250+
AI Device	$129 - $199+
Tablet	$100 - $700+

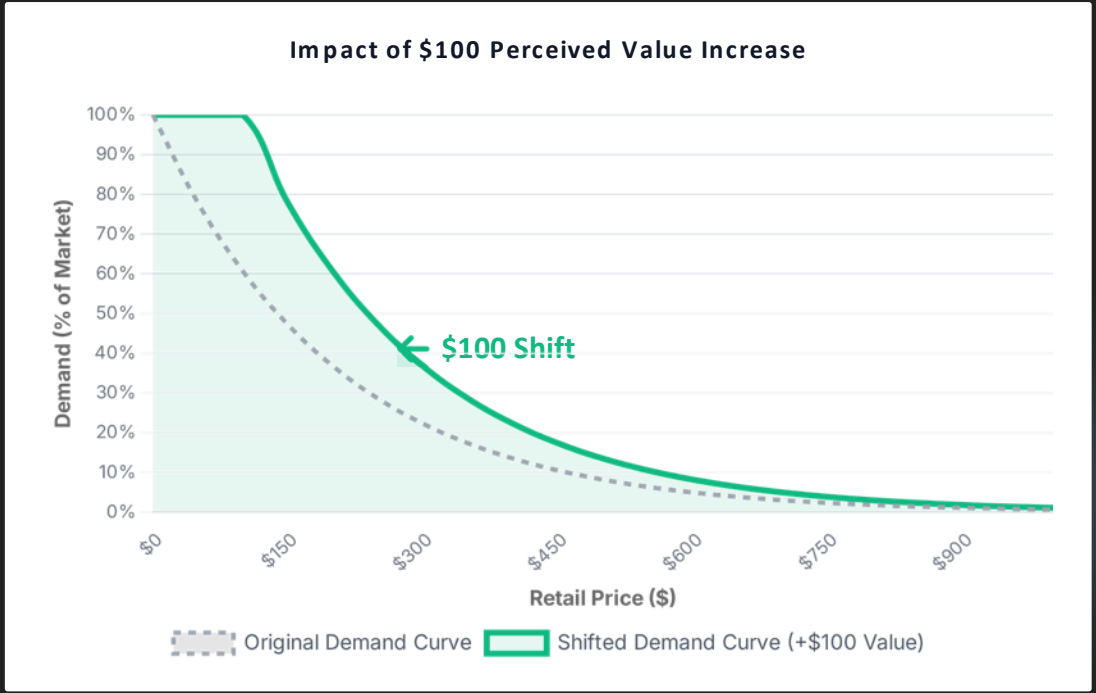


Averages	**$60 - $320**
Midpoint Perceived Value	**~$190**

Shifting the Curve: This ~$190 perceived value suggests incremental value above standard prescription frames, potentially shifting the price-price-demand curve to the right.

Source: https://www.amazon.com/, https://www.bestbuy.com/

Adding Perceived Value Shifts the Demand Curve Left



The $100 Shift

Keeping the shape of the curve constant, moving it left in a $100 increment models the perceived value increase of AI Display Glasses over standard frames.

Enlarging the Market

This shift enlarges the addressable market at price point, as consumers are willing to pay the added utility.

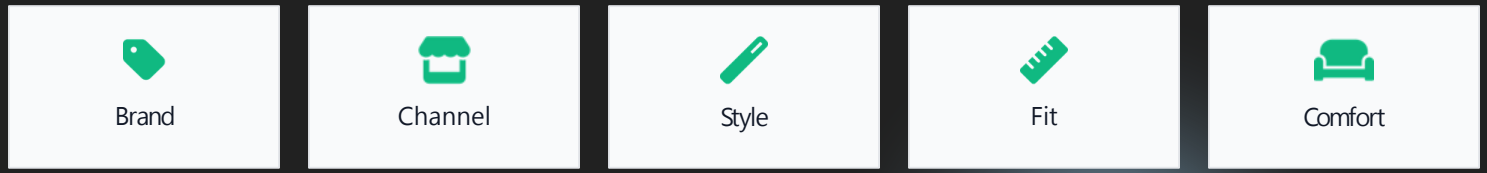
A Note of Caution

Further value increases shift the curve left, boosting consumer consumer willingness to pay higher prices, but we must be be cautious not to overestimate available incremental disposable income.

The Conclusion: $100 Is the Threshold Where a Large Market Emerges

A >100M market emerges when we can land a 100$ dollar display

PRICING WILL BE INFLUENCED BY PRODUCT DIFFERENTIATION



Based Case Gives us 100/4/100

Roadmaps Are How Industries Scale

To scale and achieve **100 for 100 performance**, we must focus on logistics, not just The semiconductor and flat panel display industries scaled through shared technology roadmaps that enabled massive, coordinated investments.

EARLY 1990S

NTRS Alignment

SIA aligns industry, national and academia around key emerging topics and

1998-1999

ITRS & 300mm

First global roadmap to address massive 300mm scaling challenges.

2000S

Display Standardization

Industry agrees on common sheet sheet sizes (Gen 4 to Gen 10), enabling massive equipment investments.

TODAY

Massive Scale

200M square meters of area produced annually—for 62.5B waveguides.

The Lesson: Standardization and harmonization are crucial. No single customer can fund the massive R&D for custom tools alone. alone.

Focus Areas: Three Significant Blockers

To reach our scaling goals, the industry must align on technical roadmaps to overcome **three significant and logistical blockers**:

Waveguide Manufacturing Technical Roadmaps

Aligning on scalable processes, materials, and standardized architectures to drive down the cost and complexity of waveguide volumes.

Throughput (UPH) Roadmaps Across Display Modules

Developing standardized approaches to dramatically increase Units Per Hour (UPH) to meet the demand of 100 million+ devices efficiently. efficiently.

Metrology and Calibration Technical Roadmaps

Establishing common methods and tools for testing, measurement, and calibration to eliminate custom, fragmented approaches that currently bottleneck currently bottleneck scaling.

International Technology Roadmap for Augmented Reality

Let’ s start growing

Today, the lack of common technical roadmaps means every build bespoke display stacks, and every supplier must requalify off specs. Shared technical roadmaps would free the industry resources on innovation.

Introducing ITRAR

We are exploring the creation of an **International Technology Technology Roadmap for Augmented Reality** inside The AR AR Alliance. Just as ITRS unlocked decades of compounding scale compounding scale for semiconductors, ITRAR will take the display the display industry into the next revolution.

Get plugged in!

We want voices from across waveguides, display engines, materials, equipment, and metrology. **All are welcome!**

Non-committal — just expressing interest

Meta