

# Google Glass: The Rise and Fall of a Revolutionary Product and its Launch Decisions

INFM612 - Final Project Presentation

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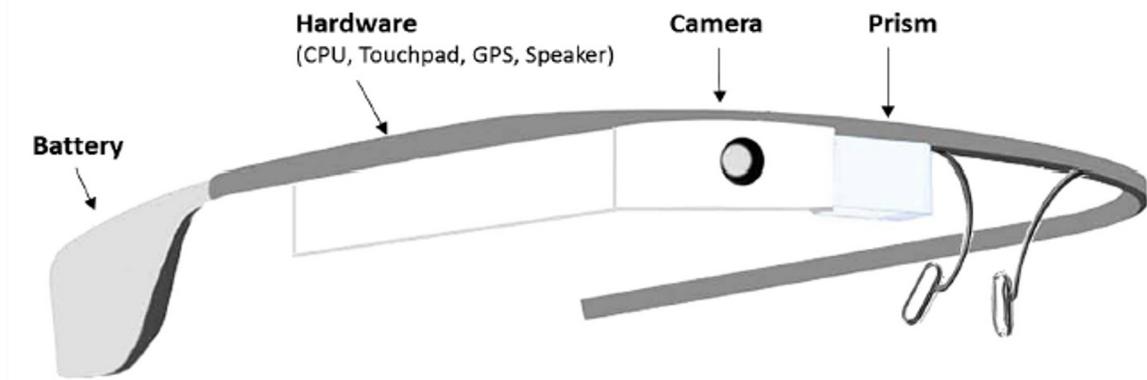


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# What is Google Glass?

## Google Glass Program

- Google Glass is a wearable technology developed by Google X, which was first introduced in 2012.
- It is essentially a pair of smart glasses with an integrated heads-up display (HUD) and augmented reality (AR) capabilities.
- The device is designed to be unobtrusive and lightweight, making it comfortable for users to wear throughout the day.



Functionality of smart glasses from Google Inc. and Martin Missfeld (CC-BY).

Rauschnabel, P. A., Brem, A., & Ivens, B. S. (2015). Who will buy smart glasses? Empirical results of two pre-market-entry studies on the role of personality in individual awareness and intended adoption of Google Glass wearables. *Computers in Human Behavior*, 49, 635–647.

<https://doi.org/10.1016/j.chb.2015.03.003>

# The Development Team Behind Google Glass

## Research & Development Team

- Project Affiliation: Google X(now called X Development)
- Member Characteristics: Diverse, with expertise in various fields, including software engineering, hardware engineering, industrial design, and user experience.

## Key Members:

- Babak Parviz: Director of the Google Glass project
- Sergey Brin: Responsible for product promotion and technology demonstration
- Thad Starner: Technical Supervisors and Managers
- Isabelle Olsson: Industrial Designer For Google Glass
- Steve Lee: Product Manager

# Google Glass features

GLASS

- **Camera** : Built-in camera that allows users to take photos and record videos hands-free.
- **Voice Commands** : Users could interact with Google Glass using voice commands("OK GLASS")
- **Third Application** : Google Glass supports a variety of apps or "Glassware" that extend the functionality of the device. It supports apps such as, Google mail, Google Map, Facebook, Twitter.etc
- **Display** : The primary feature of Google Glass is its transparent display, which projects digital content directly into the user's line of sight.
- **Connectivity** : Google Glass can be connected to the Internet via Wi-Fi, or connected together with a smartphone via Bluetooth.
- **Sensors** : such as gyroscope and compass for head tracking and gesture recognition.

# The History of Google Glass



**Year:** 2013

**System:** Android 4.0.4

**Version:** The Explorer Edition(1st version of Google Glass)

**Environment and User:** Developers and early Testers



**Year:** 2017

**System:** Android 5.1.1

**Version:** Enterprise Edition of Google Glass

**Environment and User:** Using in workplaces and industrial settings.

**Benefits:** More robust design and longer battery life



**Year:** 2019

**System:** Android 8.0

**Version:** Glass Enterprise Edition 2

**Environment and User:** Using in workplaces and industrial settings.

**Benefits:** Upgraded processor, improved camera quality, and support for Google's Android Enterprise Mobile Device Management platform.

# The Significance of Google Glass

GLASS

Thank you for over a decade of innovation and partnership. As of March 15, 2023, we will no longer sell Glass Enterprise Edition. We will continue supporting Glass Enterprise Edition until September 15, 2023.

*“Google has stopped selling its Glass Enterprise smart glasses, the company announced on Wednesday on its website. It will also stop supporting its software in September, the company said”(CNBC, 2023/03/15)*

**Influencing Factors:** privacy concerns, limited market demand, and product limitations.

## Google Glass brings the market or the significance of technology

- **Innovation:** Google Glass was a unique and innovative product that pushed the boundaries of what was possible in wearable technology.
- **Experimentation:** Google Glass was an experimental product that allowed Google to test new ideas and technologies in a real-world setting.
- **Potential:** Despite its limitations, Google Glass had the potential to be a game-changing technology in several industries, including healthcare, manufacturing, and logistics.

# Launch Strategies and Other Decisions

## \*1 EXCLUSIVITY

Exclusive program for select individuals to purchase Google Glass

"Google Glass Explorer" allowed selected individuals to purchase the device for \$1,500.

Invite-only program. Limited to a small number of individuals

Successful in creating a sense of exclusivity.  
Around 10,000 units were sold during this phase.

## 2 SOCIAL MEDIA

Encouraging users to share their experiences on social media

Glass Explorers to share their experiences on social media using the hashtag #throughglass

Social media helped to establish Glass as a consumer product, not just a prototype.

Google Glass achieved over 1 billion media impressions. It built a community of Glass.

## 3 DEVELOPER STRATEGY

Hosting events to expand the functionality of Google Glass

Series of events called "Glass Foundry" which encouraged developers to create new applications.

Events featured expert speakers and workshops on developing for Google Glass.

Helped to expand the functionality of the device. Attracted 4,000+ developers from diverse industries

Highlights

Facts & Figures

Specifics

Impact

# Launch Strategies and Other Decisions

## \*4 MEDIA

Generating media coverage through demos, reviews, and interviews

Featured in high-profile publications such as The New York Times and Forbes.

Generated over 100,000 articles in the media

Gained a lot of media attention.

YouTube channel had over 34 million views.

## 5 PARTNERSHIP

Partnering for new designs and Glass-specific applications

Partnered with companies, Luxottica and DVF (a fashion designer), to create new designs

Luxottica partnership reportedly costed Google over \$300 million. Ray-ban, TAG Heuer and Intel got involved.

Helped to position the product as a fashionable accessory, rather than just a piece of technology.

## 6 DEMONSTRATION

Creating "Glass Guides" for live demonstrations of Google Glass

Demonstrations were held at various events & locations, such as coffee shops,

Invested heavily in Glass Guides program, with reports suggesting that each Guide costed Google over \$100,000/ year.

Helped to position Google Glass as a cutting-edge, futuristic device.

Highlights

Facts & Figures

Specifics

Impact

# Business Outcome of Google Glass (Explorer Edition, 2013-15)

## LEGENDS

IVT : Investment

SL : Sales

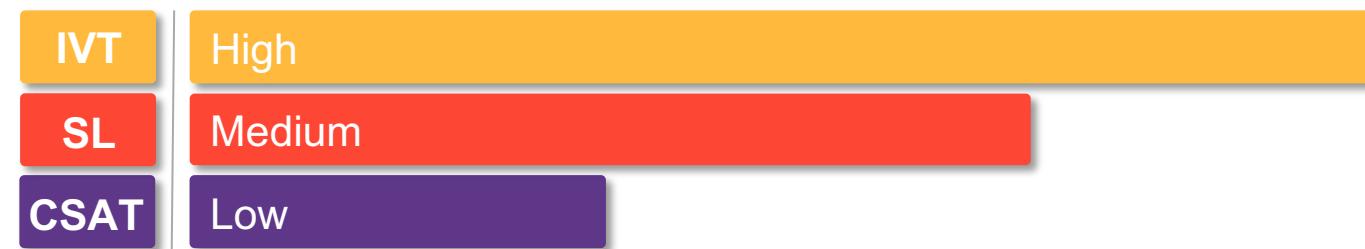
CSAT:Customer Satisfaction



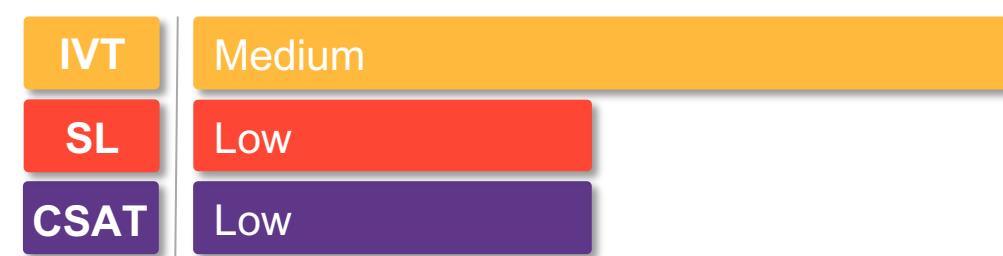
### 2013 Metrics



### 2014 Metrics



### 2015 Metrics



# The Demise of Google Glass



Google Glass was not rejected by society because of its technological inadequacy, but because of its impact on social interactions and privacy perceptions as a socio-technical artifact. The engineers who developed it failed to design the human-technology interface properly, which led to the backlash against it and its eventual failure.

# Reason behind the Glass's Failure

## Product Looking for a Market



- **Lack of clear value proposition:** It had several interesting features, such as voice commands and augmented reality, but it was not clear how these features would translate into real-world use cases.
- Primarily marketed to developers and early adopters who were interested in experimenting with new technology. On the other hand, high price points pushed them away

# Reason behind the Glass's Failure

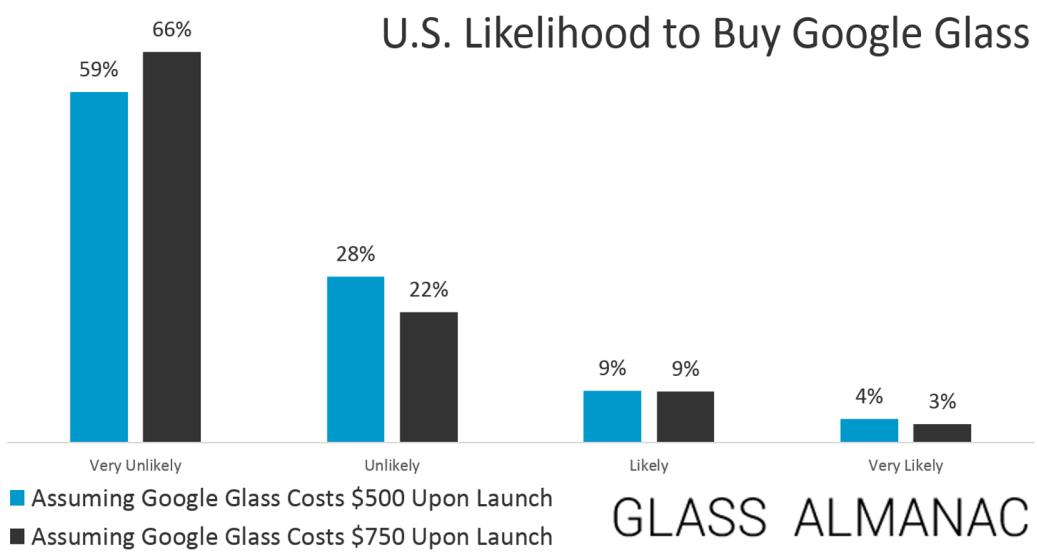
## Privacy Concerns



- Lack of understanding with the new technology.
- More invasive than any other recording technology as bystanders or peers cannot tell if they are being recorded or not.
- Concerned about the inability to control when they are connected and “on”.

# Reason behind the Glass's Failure

## High Price Point



Source: Google Consumer Survey. March 9-11, 2014. 442 responses from U.S Internet Users.

- Google Glass was priced at \$1,500 when it was released in 2013, making it a high-end luxury product.
- According to a study conducted by BI Intelligence, only 10% of consumers were interested in buying Google Glass at its launch.
- This price point put the device out of reach for middle class consumers, and it also made it difficult for developers to create apps that would be profitable.

# Reason behind the Glass's Failure

## Poor Functionality & Design



Prince Charles in 2014.Credit...Paul Chiasson/The Canadian Press,  
via Associated Press

- While Google Glass had several interesting features, it was not clear what it could do that a smartphone could not.
- Additionally, the device had several technical limitations, such as a short battery life and a small screen that was difficult to read in bright sunlight.
- Many critics also criticized the design of Google Glass, stating that it was bulky and unappealing. The device was also seen as a status symbol or a fashion accessory, rather than a practical tool.



# Decisions and Strategies Google Could Have Employed

## 1. Marketing

- Target audience
- Feature enhancement
- Collaboration with KOLs

## 2. Developer ecosystem

- Device innovation
- Support programs
- User-base expansion

## 3. Privacy policies

- Privacy controls
- Camera shutter
- Audits

**STRATEGIES**

# Decisions and Strategies Google Could Have Employed

## 4. Price Strategy

- Pricing hierarchies
- Financing options

## 5. User-experience Research

- Validation of market research
- Surveys and Interviews
- A/B Testing

## 6. Design

- User-friendly design
- Variants in enterprise edition
- Launch of AR glasses



Google's competitors, such as Facebook, Apple, and Microsoft, are making substantial investments in Augmented Reality devices.

Google itself could adopt similar strategies to enhance the success of their future AR devices.

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# THANK YOU!

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