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X | Google Glass/Enterprise Edition 2

THE INITIAL FAILURE OF TOMORROW'S SUCCESS

TABLE OF CONTENTS

INTRODUCTION

In today's evolving environment of globalization and technological development, innovation is an essential part of a successful organization. Innovation is the application of creativity and analysis to create a widely accepted strategy, product or service that meets a need in a new, fresh and different way. Throughout human history, the mind has undergone a process of evolution. The essence of innovation arises from human creativity, only through innovation can companies create new systems and market structures. What other competing companies will use as a reference, will integrate, and improve, and will become the first to adopt it or successors. Economists are convinced that there is a correlation between successful innovation and business growth. Great institutions foster creativity, bad institutions destroy it.

Founded in 1998 by Larry Page and Sergey Brin, Google changed the way people search for information on the web. Google has become a large international technology company and today exists as Alphabet Inc. a subsidiary that provides many services such as translation (Google Translate), Google Docs, Chrome web browser, Gmail and many more. Google has developed internet-related tools, including its browser, laptops (Chromebooks), Internet TV (Chromecast) and the main theme of this article, smart glasses (Goggle Glass).

The purpose of this post is to better understand this disruptive innovation of Google, the vision behind it, discuss what has been achieved so far, whether they can be interpreted as successes or failures and why. Finally, we will provide a series of recommendations on what should be considered in the innovation process in the past, what is relevant now and what incremental innovations should be considered in this area. future products. According to the possible development of new markets and competition.

It was chosen to review Google Glass because although the first version has not been released in the last 5 years, they were a radical innovation for which the market is still preparing. In addition, it is interesting to compare with similar innovations developed by Oculus, which became its main competitor in virtual reality glasses.

WHAT IS GOOGLE GLASS?

The advent of smartphones and devices like Google Glass with high-density displays and 3D graphics has resulted in a new technology called virtual reality (Appendix 1). It mainly refers to a certain type of computer-based virtual reality simulation that is experienced through sensory stimulation (visual and auditory).

Project Google Glass, known as Project Glass, is a research and development project of Google X Lab (now a subsidiary of X and Alphabet Inc.) launched by Google around 2011 with the aim of creating augmented reality glasses. From the future and entered beta in April 2012. Google Glass consists of several elements. At first glance they look like traditional glasses, but they are the opposite. Google Glass was the predecessor of Glass Enterprise, a small, lightweight portable device with a transparent display for hands-free operation.

On February 20, 2013, the company launched a website to recruit volunteers to test the glasses and the prototype will sell for $1499. In July 2013, two surgeons first used Google Glass: an opportunity to film an operation from a subjective point of view and share the experience.

However, in early 2015, Google suspended the project and announced that Glass would soon be redesigned under the direction of Tony Fadell. In July 2017, a new Google Glass for Business model was developed and optimized for the B2B environment, and Google abandoned the B2C version. As part of the pilot program, Google is testing the Glass Enterprise model together with partners such as Boeing and Deutsche Post.

However, it was not until 2019 that Google re-launched Google Glass for professional use with the Glass Enterprise Edition 2 model, which is available to all Google partner companies. The combination of Google Enterprise Edition 2 and Google Workspace allows these companies to use the intuitive and convenient Google Meet environment to provide visibility to stakeholders across the value chain and partner network. The combination of these two tools provides a first-person view and real-time interaction from the user's perspective. Companies from various industries are already using these virtual reality glasses.

GOOGLE GLASS/ENTERPRISE VS. OCULUS/META QUEST

Meta Quest 2 (acquired by Oculus as a subsidiary) is a virtual reality headset developed by Oculus VR and released in 2019 that immerses you in the game worlds and offers extensive 360-degree video content. Another version of the device was released shortly after the following year. After 20 months on the market, Quest 2 has sold nearly 15 million units. The IDC vice president publicly called it the most successful virtual reality viewer to date on Twitter.

Both devices offer an immersive experience that's not limited to cables attached to your desktop. But there are some differences between them. So, let's compare the two innovations and first mention the most important features of Google Glass/Enterprise Meta Quest 2 that allow you to track the movement of your head. The presence of electronic screens that provide information to the user is a great advantage over Alphabet virtual reality glasses, as they also have adjustable lenses that provide sharp images, gesture control, ease of use and increased storage capacity. Another advantage is its affordability compared to Google Enterprise, which costs $300 instead of $999 for virtual reality glasses.

As for Google Enterprise, thanks to the transparent display, the device is suitable for professions that require hands-free access, such as hospitals, crafts, restaurants, etc. It has the advantage of portability, since it is smaller than the Meta Quest 2. 36 grams in front of VR The headset weighs 503 grams and allows you to show others what you are watching through a live video stream, helps you distract yourself at work and uses voice. commandos

SUCCESS OR FAILURE?

The way technology moves and evolves is influenced by how users choose to use it or not. Google Glass generated a lot of curiosity and some skepticism when it launched to the public in 2012, but due to its various limitations, customers eventually lost interest, forcing Google to withdraw the product.

By the fall of 2014, Google Glass completely collapsed due to the high price of the device, the lack of specific apps for the masses, everyday life and privacy issues. There are concerns about distracted drivers and the difficulty of knowing when a device's camera or microphone is recording you or your daily activities without your consent. Even restaurants and cinemas officially ban glasses. In addition, Google glasses have some errors and some limitations in the development of professional applications.

In addition, the above combined with its low appeal in design is unpleasant. Instead of getting a futuristic looking product, people laugh at its appearance and judge funny memes and graphics on platforms like Twitter (Addendum 2). Another drawback is elite exclusivity, as you have to be selected by Google to access them. It is a prejudice that has disappointed the public. Montieri are seen as selfish, called "glass holes" and some are even attacked for using Google Glass, especially by cameras.

More than half of Glass application developers have stopped their projects and developments at Google Glass, according to Reuters, a global news agency based in London. Toronto-based independent game development studio Little Guy Games developed the game for Google Glass, a project that was canceled in 2014 by the game's (then) CEO due to lack of commercial prospects for the game. Instead, Oculus developed an alternative to this product, the virtual reality helmet Oculus Quest, now owned by Meta (then Facebook). "It would be different if there were 200 million Google glasses on the market. But at the moment that market does not exist", Tom Fenzel's announcement officially ended the 2014 partnership between Google and Little Guy Games.

In summary, Google announced on January 15, 2015, that it will stop manufacturing and selling Google Glass. On the other hand, one in five app designers working at Google Glass have since become more interested in business-oriented projects than those aimed at the public. In a new twist to what happened with the original Google Glass after its discontinuation and continues today, the new Glass Enterprise model has launched its second edition today. Today, companies such as DHL, DB Schenker, Samsung, and Volkswagen are examples of commercial glass customers. This is a testament to the commercial potential of this type of innovation.

RECOMMANDATIONS

The field of virtual/augmented reality is in full swing and has significant potential, companies are already realizing this and so some have already integrated this technology. Therefore, it must continue to work hard to improve virtual reality technology and improve understanding, adaptation, and market integration capabilities.

An important aspect is the implementation of a solid innovation process in the development of the next generation of virtual reality technology, initiated by Google Enterprise or Alphabet Inc. (Appendix 3). After an idea is developed, due diligence is essential, including two types of assessments: an initial technical assessment and an initial market assessment. X to some extent (still at a high cost) developed the first correctly and the second incorrectly, as the potential market size and market acceptance were not fully confirmed at that time. It seems to me that careful communication with focus groups could have anticipated to some extent the market's resistance to these glasses. When it comes to development and design, it is important to learn more about the risks and issues to consider when experimenting with and integrating new components and systems. Once the potential exists, a market valuation is determined to determine the creation and capture of value. It is important to define the benefits of the new product for consumers and who it will serve. Finally, production engineering, testing and validation are necessary before launch and full production. To keep costs to a minimum, we must consider manufacturing or purchasing decisions, reduce the number of parts, use standardized components, use assembly functions that require linear motion, and use self-aligning parts.

Another aspect to keep in mind is the check-in schedule. Being one of the first to move can provide loyalty and technological leadership, but it often presents drawbacks, including high research and development costs and uncertainty about customer demand. To obtain the best entry time it is necessary to know and determine consumer preferences, as well as the improvement of this innovation over previous solutions (for example, the sword of Demacles, predecessor of the current virtual reality glasses many years ago in 1968) (Appendix 4), the maturity of the underlying technology, the risk of competitive entry, the possibility of early losses (since pioneers bear most of the R&D costs and cannot generate long-term benefits), if resources can accelerate the adoption of innovations in the market (through aggressive marketing and the development of suppliers and distributors), and finally, whether the reputation of the company can be used as a means to reduce uncertainty to increase p to obtain the probability of a successful previous entry).

On the other hand, it is important to be prepared for technological cycles. This cycle includes a flow phase (in which there is great uncertainty about the technology and its market) and a specific post-

dominant design phase (when companies focus on incremental improvements of current models and production efficiency).

CONCLUSION

The firm considered it to be "Time to Market", while all the indicators were red, which surely makes it Google's worst failure, seriously discrediting it in the race for innovation. The public was really not ready to be possibly filmed in any situation. Neither is the law, and that is understandable. Google Glass allows you to record the video and audio of everything that happens in the user's day, and therefore everything around it. Thus, there are several reasons that explain the total failure of Google Glass and the end of marketing to the general public. The price, exclusivity, privacy uncertty issues, design, limitation of possible applications. All this made Google understand that they had not properly considered the timing, having arrived too early in a market that was not ready, with an unfinished product that was deemed "elitist". However, the potential of virtual reality is not underestimated at all, and it is worth working to improve it, gaining resilience and adaptability to changes and market demands, adopting a solid innovation process.

The integration of Google Enterprise glasses by companies such as DHL, DB Schenker, Samsung, and Volkswagen proves the development potential of this device[1]. Beyond Google Enterprise, augmented reality glasses will be the next big battle for big tech companies. As the application of augmented reality has been gaining strength from the manufacturing industry to the luxury fashion industry. There's a lot of talk about the recent success of VR headsets, but Google should closely follow the evolution of augmented reality glasses, which could far exceed VR headsets if X/Glass work on improving its weak points against the latter type of device. However, it must be accepted that the protection of privacy and data, as it was in the origins of Google Glass, remains one of the major concerns of the modern digital user. Therefore, the market may not be 100% ready to receive this type of innovation even in 2022, and the development of pain relievers for privacy issues becomes a top priority for X.

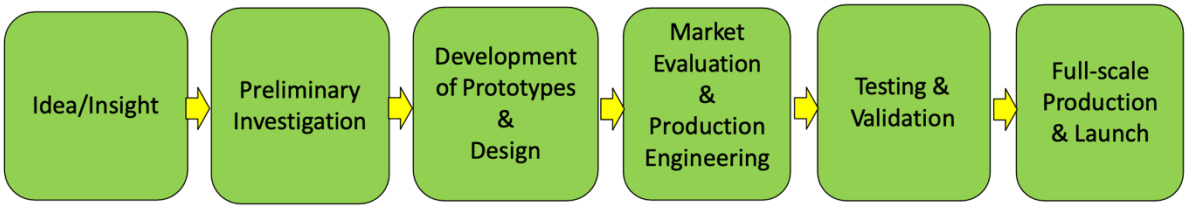
[1] https://www.google.com/glass/start/

APPENDIX/ADDENDUM

- Appendix 1:

- Appendix 2:

- Appendix 3:



- Appendix 4:

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