Augmented Reality In Jewellery

Mohini Ikhankar¹, Prof. Sandhya Dahake²

1 Student, Department of computer science, GHRIIT, Nagpur, Maharashtra 2Assistant Professor, Department of computer science, GHRIIT, Nagpur, Maharashtra

Abstract: Augmented reality is new emerging technology, where things in the physical world are mixed with virtual content to increase user experience and simplicity. As augmented reality technology allows us to create a virtual world on top of the physical world, this can be used to share same physical resources with multiple users.

During the recent years, the augmented reality technology has been taking over in distinct regions of business, most firmly in retail and e-commerce. With a new generation of consumers (i.e. millennials), new approaches in sales are vital to keeping your business in step with time. We are involved in the implementation of AR in the jewelry Industry to increase customer satisfaction and experiences. In this review paper, we basically present how AR actually works in jewellery.

Keywords: Augmented reality, Real world, Jewellery, Apps.

I. Introduction

Augmented Reality is quickly gaining traction and is one of the most promising fields of technology in recent years. It is truly a game changer and is taking customer experience to the next level. One can showcase numerous elements in a real environment, allowing a person to understand how a product or service would feel in real life. It also leads to more sales, as nearly 40% of the customers are willing to pay more when they have a first-hand experience. Augmented Reality for jewellery industry is quickly gaining traction for its usefulness. With numerous online jewellery stores popping up, it has become crucial to know how a particular design or model looks on an individual's neck, or finger, or arm. Being able to see exactly how a particular piece of jewellery fits on oneself will help making the decision much easier. It also ensures that a customer is more likely to make a purchase as all doubts about the way it looks and fits are dispelled. This is exactly why augmented reality companies in jewellery sector are multiplying since they see an incredible amount of opportunity and potential in this field.Online businesses are the fad now, and being able to view the product in a real environment is extremely useful and powerful. Augmented reality tech allows customers to make sure the jewelry look great. Cutting-edge hand scanning technology is creating benchmark impact on the customers as well as users. Once user decide a design they love, they can easily add it to a shopping cart like any other ecommerce app at the brand's store product app and check it out for future. Such features of App help people to make a decision to buy antique and expensive jewellery online. They can get assured in before hand how will it look on them and whether it will suit them or not. Thus on trying on this jewellery app gives the user the confidence to buy. Apart from this the return rates are reduced when customer feel to return the jewellery. Augmented Reality application for Jewellery industry, however, begs to differ. It is able to effectively solve one of the major caveats of online shopping. It can provide more confidence in buying online products or trying on new designs. "It can give brands a competitive advantage, offering customers the opportunity to see the products before they try them on or buy them.

1. MARKETING

II. Why Use Augmented Reality In Jewellary?

Every advertising campaign using augmented reality objects will bring pinnacle-notch experiences to customers, as well as the deeper knowledge of the product. Thus, a better brand awareness. One of the oldest types of advertising in the jewellery industry is publishing product catalogues. In this regard, a marker-based augmented reality app for smartphone owners can turn every items of catalogues into 3D animated models. In jewellery, it's all about presentation and showcases. With AR you can create showcases, limited only by your handiest by way of your fable and price range, displaying jewellery items through the purchasing glass along with extra information (size, weight, 4Cs, etc.). People only have to point their phones/mobile devices onto the showcases. Another use areshopwindows. Everyone looks at shop windows and gets attracted from time to time. Interactive store entrances catch people's eye. For example, Swiss watchmaker Tissot made it viable to try on the 3D model of their product right in front of the shop. And it boosted not only the interest but the sales: Tissot Selfridges boutique had an 85% increase in sales as the result of this campaign.

2nd National Conference of Recent Trends in Computer Science and Information Technology G. H. Raisoni Institute of Information Technology, Nagpur-440023, India 32 | Page



Figure 1:Catalogues into 3D animated models



Figure 2:Swiss watchmaker Tissot made 3D model

2. ENHANCING CUSTOMER EXPERIENCES

One of the great features of the XXI century is that retail has moved from the streets to mobile devices. Most people practically stopped buying things in the shops, instead of shopping online. And the biggest barrier for jewellery e-stores is the inability to try products on. Customers usually conflict to visualize items, that are two-dimensional. Browsing rings, necklaces, and other jewellery cannot give a real sense of size, looks, and details, and moreover often leaves a wrong idea about a product. Augmented reality and AR apps can solve this. The scheme "try before buy" is a great fit for online shopping if paired with AR. Selling jewellery is about invoking desire and need, and nothing drives it like trying on jewellery. Augmented reality apps provide a chance to do it virtually at home or anywhere else. In-store selling also can be changed with help of AR. Mirrors, screens, dressing rooms – one can use it all with AR to impress and attract shoppers. Jewelry AR apps also allow user data collection which then can be used to personalize sale offers or adjust the marketing strategy. One final thing is that AR drives interest to interact with a product, allow people to try 10 different rings on themselves and you'll notice the change.

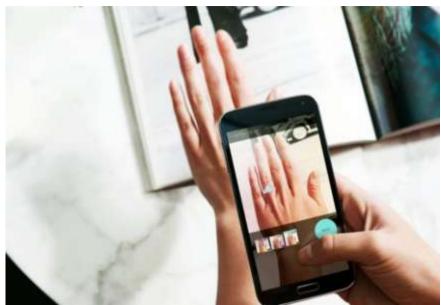


Figure 3:AR Jewellery app

3. BUSINESS EFFICIENCY

With the ever-growing number of smartphones users, meaning potential clients, and 24/7 access almost everywhere, you can't ditch such a business opportunity. Many physical stores struggle to stay in the game due to high rent, while online merchants don't have to worry about that. E-commerce also aids in cutting advertising costs. Apps can reach much wider audiences than conventional ads on billboards, TV, radio, etc. We're not telling those methods are outdated, just mentioning a better option. And lastly, augmented reality boosts sales,that is evident. Apps are a common thing and AR attract interest, as simple as that. Purchases are just a few clicks away.

III. Use Of Ar In Jewellery

There are two ways of using augmented reality in jewellery such as mobile-augmented commerce and augmented product catalogue.

1. MOBILE AUGMENTED REALITY

Today most people prefer to buy online instead of shopping in the brick-and-mortar stores. However, on the jewellery market, things are totally different. People don't trust online retailers because browsing earnings, rings, and necklaces does not give them a true idea about the size and details. That is where AR apps can be a good solution. With augmented reality, buyers can virtually try on jewellery anytime and anywhere before making a purchase. These augmented reality apps delight customers and encourage them to interact with the product. One more good thing about augmented reality apps is they collect user data so marketers can use it to optimize advertising strategy and improve offers. AR apps simplify the life of modern jewellers by allowing them to be accessible to customers 24/7 without a need to pay high rent. Although augmented reality apps still can't fully replace brick-and-mortar stores, they decently supplement jewellery market.

2. AUGMENTED PRODUCT CATALOGUE

A product catalogue is a conventional type of advertising in the jewellery industry. Jewellery can look awesome in pictures, but even the most vivid imagination doesn't guarantee it would look good on you. Therefore, before people decide to buy expensive jewellery online, they want to see how it looks on them and whether it suits them. Of course, simple product catalogues aren't able to show how a piece of jewellery will look on the hand. However, it's possible with augmented product catalogues which turn every item into 3D animated models. These catalogue can be applied for in-store selling. With them, it's pretty easy to impress and attract buyers.



Figure 4: Augmented reality based catalogue

IV. How To Sell Jewellary With Ar?

One of the best and practical examples of augmented reality in jewellery are showcase units. Check out the Holojem platform, allowing customers to view the items up close as never before. Stores and stands at trade shows may feature such units with AR features, showcasing jewellery in the best possible way. This is a cutting-edge, revenue-boosting, 3-dimensional and highly-compelling option.

- Other solutions may include: I. AR mobile apps for e-commerce
- II. Product catalogues with AR
- III. Print and product augmentation
- IV .Image recognition for digital objects

V. Future Of Ar

Despite the benefits of selling jewellery with AR, it's still not so easy to find a suitable app that satisfies all buyers' needs. Augmented reality isn't widespread, but this situation will change soon. Some reason for that, augmented reality offers shoppers the confidence that may motivate purchasing decisions. When shopping online, buyers can't touch or feel the product. This uncertainty leads to abandoned carts. Conversely, augmented reality makes it possible to have a sensory experience with items. AR can provide users with an instore shopping experience, regardless of their location. There's no need to leave home or office to try on the item. With augmented reality, it doesn't take many efforts to see how the jewellery looks on you. Using augmented reality apps customers can avoid communication with annoying salespeople and choose the most suitable option in a convenient way. The ultimate goal of augmented reality is to create a fitting and accepted concentration and to ease the human work.

VI. Conclusion

We reviewed the area of augmented reality and the different technologies used to implement it. Augmented reality is likely to worm its way into our daily lives more and more in the 21st century. Finally, various studies show that most buyers would like to use augmented reality in retail, and 55% state AR helps to make a right purchase. Besides offering new experiences to customers with AR jewellery apps, you would also most probably distinguish your business from competitors.With e-commerce taking over conventional retail and consumers spending much time on mobile devices, augmented reality is worth investing.

References

- Ithinyai Moses Mutwiri "Research paper on Augmented Reality", South Eastern Kenya University, unpublished M. Young, The [1]. Technical Writer's Handbook. Mill Valley, CA: University Science, 1989.
- [2]. R. Alain Pagani, Jose Henriques, Didier Stricker "Sensors for location based augmented reality: the example of Galileo and Egnos", The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLI-B1, 2016
- Nivedha, Hemalatha "A Survey on Augmented Reality", International Research Journal of Engineering and Technology, 2015 [3]. Miss. Arti Yadav, Miss. Taslim Shaikh, Mr. Abdul Samad Hujare, Prof. Murkute P. K.(Guide) "A Survey on interior Design using [4].
- Augmented reality", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 4 Issue 5, May 2015
- Vikas Tiwari, Vijay Prakash Tiwari and Dhruvesh Chudasama "Augmented Reality and its Technologies", International Research [5]. Journal of Engineering and Technology (IRJET) Volume: 03 Issue: 4 April, 2016
- [6]Vaishali Agrawal, Jignesh Patel "Augmented reality and its working", International Research Journal of Engineering and [6]. Technology (IRJET) Volume: 04 Issue: 05 | May -2017 Er. Revati Mukesh Raspayle, Prof. Kavita Kelkar "Towards a Development of Augmented Reality for Jewellery App"International
- [7]. Journal of Computer Science and Mobile Computing(IJCSMC), Vol. 5, Issue. 6, June 2016
- [8]. G. Radhika, T. Senthil Kumar, Mangayarkarasi N. and Nirmala R." Virtual Try of a Jewellery using Skin Classifiers" I J C T A, 9(5), 2016