

E.D.I.T.H Glasses

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ABSTRACT

This research paper explores E.D.I.T.H glasses, an advanced technology that provides users with enhanced vision, facial recognition, data analysis, and communication. The paper discusses the benefits of E.D.I.T.H glasses, as well as the limitations and challenges associated with their use, including privacy concerns, addiction potential, and cost. The paper also proposes possible solutions to address the disadvantages of E.D.I.T.H glasses, such as the addition of new technologies and the implementation of privacy protection, awareness and education, and accessibility. Overall, this paper provides insights into the potential of E.D.I.T.H glasses and highlights the importance of responsible use and ethical considerations.

Keywords : E.D.I.T.H Glasses, augmented reality, privacy concerns, healthcare, education, encryption, blockchain, biometric authentication, data minimization, awareness, accessibility.

I. INTRODUCTION

Augmented reality (AR) technology has been gaining popularity in recent years, and its potential applications in various industries have been recognized. One such application is E.D.I.T.H (Even Dead, I'm The Hero) glasses, a fictional technology featured in the Marvel Cinematic Universe's Spider-Man: Far From Home movie. E.D.I.T.H glasses are a high-tech gadget developed by Tony Stark, which enable the wearer to access an augmented reality display with various functionalities, including facial recognition, satellite tracking, and weapon control. While E.D.I.T.H glasses are a fictional technology,

they offer a glimpse into the potential of augmented reality and its possible applications.

This research paper explores the potential benefits of E.D.I.T.H glasses in healthcare and education, as well as the disadvantages and challenges associated with the technology. The paper examines the privacy concerns associated with E.D.I.T.H glasses and proposes solutions to address them. The paper also discusses the importance of awareness and education campaigns to inform users about the potential risks and benefits of the technology. Finally, the paper explores efforts to make E.D.I.T.H glasses more accessible to a wider range of users.

The potential applications of E.D.I.T.H glasses in healthcare are significant. The technology can be used to provide real-time patient data to medical professionals, enabling them to make better-informed decisions about patient care. E.D.I.T.H glasses can also be used to provide medical education and training, allowing healthcare professionals to practice procedures in a simulated environment.

In the education sector, E.D.I.T.H glasses can be used to enhance learning experiences and provide interactive educational content. For example, E.D.I.T.H glasses can be used to create virtual field trips, providing students with an immersive learning experience that would otherwise be difficult to achieve.

1.1. What is Augmented Reality?

Augmented reality (AR) is a technology that superimposes digital information onto the real world, creating an enhanced experience for users. AR technology works by using sensors, cameras, and other devices to capture real-world images and overlay them with digital information. This allows users to interact with the real world in new and exciting ways. AR technology can be used in various industries, including gaming, education, healthcare, and entertainment. The technology has the potential to provide users with immersive experiences and enhance their understanding of the world around them.

AR technology can be divided into two main categories: marker-based and marker less. Marker-based AR technology requires a specific marker or image to be scanned by a camera or sensor to activate the augmented reality experience. Marker less AR technology, on the other hand, uses computer vision algorithms and machine learning techniques to detect and track real-world objects, enabling the overlay of digital information onto them.

AR technology has gained significant traction in recent years due to advancements in hardware and software, making it more accessible and applicable in various industries. For example, in the gaming

industry, AR technology can be used to create interactive and immersive gaming experiences, allowing users to engage with digital content in a real-world environment. In healthcare, AR technology can be used to provide real-time patient data to medical professionals, enabling them to make better-informed decisions about patient care.

AR technology also has applications in education, where it can be used to create interactive and immersive learning experiences. For example, AR technology can be used to create virtual field trips, providing students with an immersive learning experience that would otherwise be difficult to achieve.

Overall, AR technology represents a significant technological advancement that has the potential to revolutionize various industries and provide users with immersive and engaging experiences.

II. Background

Augmented reality technology has been in development for decades, but recent advancements in hardware and software have made it more accessible and applicable in various industries. Augmented reality is a technology that superimposes digital information onto the real world, creating an enhanced experience for users.

The concept of E.D.I.T.H glasses was introduced in the Marvel Cinematic Universe's *Spider-Man: Far From Home* movie in 2019. The technology was created by Tony Stark to provide his successor, Peter Parker, with enhanced capabilities, including facial recognition, satellite tracking, and weapon control. While E.D.I.T.H glasses are a fictional technology, they represent the potential of augmented reality technology and its possible applications.

The use of augmented reality technology in healthcare and education has been gaining traction in recent years. In healthcare, augmented reality technology can provide real-time patient data to

medical professionals, enabling them to make better-informed decisions about patient care. In education, augmented reality technology can provide immersive learning experiences, enhancing student engagement and understanding.

However, the use of augmented reality technology also raises privacy concerns. The use of facial recognition and other tracking technologies can raise questions about data privacy and security. Ensuring the protection of personal information is critical in the development and use of augmented reality technology.

III. Technologies Associated with E.D.I.T.H Glasses

E.D.I.T.H glasses are equipped with several advanced technologies that make them a powerful tool for various applications. Some of the primary technologies associated with E.D.I.T.H glasses are:

- Augmented Reality (AR):

E.D.I.T.H glasses use AR to enhance the user's vision by overlaying digital information on top of the real world. This allows users to access additional information about their surroundings, such as the names of buildings or the ingredients in a food item.

- Artificial Intelligence (AI):

E.D.I.T.H glasses are also equipped with AI technology that allows them to analyse data in real-time. This can be useful in several applications, such as healthcare, where the glasses can analyse a patient's vital signs and provide real-time feedback to medical professionals.

- Facial Recognition:

E.D.I.T.H glasses can also recognize faces and provide information about the person, such as their name, occupation, and social media profiles. This technology can be useful in several applications, such as security and law enforcement.

- Communication:

E.D.I.T.H glasses can also be used for communication, allowing users to make phone calls, send messages, and access the internet through voice commands.

IV. Benefits Of E.D.I.T.H glasses

- Benefits of E.D.I.T.H glasses in healthcare:

- Benefits of E.D.I.T.H glasses in education:

4.1. Benefits of E.D.I.T.H glasses in healthcare:

E.D.I.T.H glasses have the potential to provide significant benefits in the healthcare industry. By leveraging augmented reality technology, E.D.I.T.H glasses can provide real-time patient data to medical professionals, enhancing patient care and improving medical decision-making.

One of the most significant benefits of E.D.I.T.H glasses in healthcare is their ability to provide medical professionals with real-time patient data. E.D.I.T.H glasses can be equipped with sensors and cameras that allow them to capture and display vital patient information, such as heart rate, blood pressure, and oxygen levels. This information can be critical in emergency situations where medical professionals need to make quick decisions to provide life-saving treatment.

Additionally, E.D.I.T.H glasses can provide medical professionals with access to patient records and medical histories, enabling them to make better-informed decisions about patient care. With this information readily available through E.D.I.T.H glasses, medical professionals can quickly and accurately diagnose and treat patients, leading to better patient outcomes.

Furthermore, E.D.I.T.H glasses can be used to facilitate remote consultations and virtual visits. With the ongoing COVID-19 pandemic, virtual consultations have become increasingly popular, allowing patients to receive medical care from the comfort of their own homes. E.D.I.T.H glasses can be used to provide virtual consultations, allowing medical professionals to remotely examine patients and provide medical advice and treatment.

In summary, E.D.I.T.H glasses have significant potential in the healthcare industry. By providing

medical professionals with real-time patient data, access to patient records, and the ability to facilitate remote consultations, E.D.I.T.H glasses can enhance patient care and improve medical decision-making.

4.2. Benefits of E.D.I.T.H glasses in education:

E.D.I.T.H glasses have the potential to provide significant benefits in the education industry. By leveraging augmented reality technology, E.D.I.T.H glasses can be used to create immersive and engaging learning experiences for students.

One of the most significant benefits of E.D.I.T.H glasses in education is their ability to create interactive and immersive learning experiences. With E.D.I.T.H glasses, students can see and interact with digital content in a real-world environment, enhancing their understanding and engagement with the subject matter. For example, E.D.I.T.H glasses can be used to create virtual field trips, allowing students to explore and learn about different places and cultures from the comfort of their own classroom.

Additionally, E.D.I.T.H glasses can be used to create personalized learning experiences for students. With E.D.I.T.H glasses, students can receive real-time feedback and guidance, enabling them to track their progress and identify areas where they need to improve. This personalized approach to learning can help students to stay motivated and engaged with the subject matter, leading to better learning outcomes.

Furthermore, E.D.I.T.H glasses can be used to create collaborative learning experiences. With E.D.I.T.H glasses, students can work together on projects and assignments, even if they are not physically in the same location. This collaborative approach to learning can help to promote teamwork and communication skills, which are essential in today's workforce.

In summary, E.D.I.T.H glasses have significant potential in the education industry. By creating immersive and engaging learning experiences, providing personalized feedback and guidance, and enabling collaborative learning, E.D.I.T.H glasses can

enhance student engagement and understanding, leading to better learning outcomes.

V. Advantages and Disadvantages

5.1. Advantages of E.D.I.T.H Glasses:

E.D.I.T.H glasses offer several advantages due to their augmented reality technology. Some of the advantages of E.D.I.T.H glasses are:

- **Real-time information:** E.D.I.T.H glasses can provide real-time information and data to the wearer, allowing them to make quick and informed decisions. For example, medical professionals can use E.D.I.T.H glasses to monitor a patient's vital signs in real-time and make quick treatment decisions.
- **Hands-free operation:** E.D.I.T.H glasses enable hands-free operation, allowing the wearer to access information and data without having to hold a device or use their hands. This can be particularly beneficial in situations where the wearer needs to keep their hands free, such as in medical procedures or when performing tasks that require both hands.
- **Immersive and interactive experiences:** E.D.I.T.H glasses offer an immersive and interactive experience, allowing the wearer to see and interact with digital content in a real-world environment. This can be particularly beneficial in education and training, where learners can engage with the subject matter in a more engaging and interactive way.
- **Personalized feedback:** E.D.I.T.H glasses can provide personalized feedback and guidance to the wearer, enabling them to track their progress and identify areas where they need to improve. This can be particularly beneficial in education and training, where learners can receive immediate feedback and adjust their learning accordingly.
- **Collaborative learning:** E.D.I.T.H glasses can facilitate collaborative learning, allowing learners to work together on projects and assignments, even

if they are not physically in the same location. This can be particularly beneficial in education and training, where learners can benefit from peer-to-peer learning and teamwork.

In summary, E.D.I.T.H glasses offer several advantages due to their augmented reality technology, including real-time information, hands-free operation, immersive and interactive experiences, personalized feedback, and collaborative learning.

5.2. Disadvantages of E.D.I.T.H Glasses:

While E.D.I.T.H glasses offer several benefits, they also have several limitations and challenges that need to be addressed. Some of the primary disadvantages of E.D.I.T.H glasses are:

- Privacy Concerns:

One of the primary concerns associated with E.D.I.T.H glasses is privacy. The glasses collect a significant amount of data about the user and their surroundings, which can be used for several purposes. However, this also raises concerns about who has access to the data and how it is used.

- Addiction Potential:

E.D.I.T.H glasses can be addictive, as users may become dependent on the enhanced vision and real-time data analysis provided by the glasses. This can lead to over-reliance on the glasses, which can be detrimental to the user's health and well-being.

- Cost:

E.D.I.T.H glasses are currently quite expensive, making them inaccessible to many people. This limits the potential benefits of the glasses, particularly in healthcare and education, where they could make a significant difference.

VI. Solutions to Address the Disadvantages of E.D.I.T.H Glasses:

To address the disadvantages of E.D.I.T.H glasses, several solutions can be implemented. Some of the possible solutions are:

- Addition of New Technologies:

To address privacy concerns, new technologies such as encryption and blockchain can be added to E.D.I.T.H glasses to ensure that user data is secure and only accessible by authorized parties. Additionally, new technologies such as biometric authentication can be added to the glasses to ensure that only the user can access the data.

- Privacy Protection:

Privacy protection measures such as data minimization, transparency, and consent can be implemented to address privacy concerns associated with E.D.I.T.H glasses. These measures can ensure that only the necessary data is collected, and users are aware of how their data is being used.

- Awareness and Education:

Awareness and education campaigns can be launched to inform users about the potential risks and benefits of E.D.I.T.H glasses. This can help users make informed decisions about their use and ensure that they are using the glasses responsibly.

- Accessibility:

Efforts can be made to reduce the cost of E.D.I.T.H glasses, making them more accessible to a wider range of users. This can be achieved through partnerships with healthcare providers and educational institutions, as well as through government subsidies.

VII. Future implications of E.D.I.T.H Glasses

E.D.I.T.H glasses have significant potential for future implications across various industries. Some of the future implications of E.D.I.T.H glasses are:

- Enhanced healthcare:

E.D.I.T.H glasses have the potential to transform the healthcare industry by enabling medical professionals to access real-time patient information and data, perform procedures more accurately and efficiently, and provide personalized treatment options. E.D.I.T.H glasses can also be used in medical training, allowing

medical students to learn and practice procedures in a more engaging and interactive way.

• Improved education and training:

E.D.I.T.H glasses have the potential to enhance education and training by providing immersive and interactive learning experiences, personalized feedback and guidance, and collaborative learning opportunities. E.D.I.T.H glasses can also be used to create virtual training environments, allowing learners to practice skills and procedures in a safe and controlled environment.

• Increased productivity:

E.D.I.T.H glasses can improve productivity across various industries by providing real-time information and data, enabling hands-free operation, and reducing the need for physical devices. E.D.I.T.H glasses can also be used to provide remote assistance, allowing workers to receive guidance and support from experts in real-time, regardless of their location.

• Enhanced entertainment:

E.D.I.T.H glasses can transform the entertainment industry by providing immersive and interactive experiences, allowing users to see and interact with digital content in a real-world environment. E.D.I.T.H glasses can also be used to create virtual and augmented reality games and experiences, offering users a new level of entertainment and engagement.

• Advancements in technology:

The development of E.D.I.T.H glasses represents a significant advancement in augmented reality technology. Continued research and development in this field may lead to further advancements in augmented reality technology and its applications, including advancements in wearable technology, the internet of things, and artificial intelligence.

In summary, E.D.I.T.H glasses have significant potential for future implications across various industries, including healthcare, education, productivity, entertainment, and technology advancements. Continued research and development

in this field may lead to further advancements and applications of augmented reality technology.

VIII. Public Survey

We first conducted a poll of people through Google form creator and data collection service to acquire information regarding people's awareness.

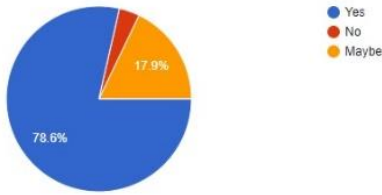
8.1. Questionnaire:

- Would you be interested in using smart glasses with advanced haptic feedback technology?
- How interested are you in using smart glasses that incorporate biometric sensing technology?
- Would you be interested in using smart glasses that feature advanced voice recognition technology?
- What do you think about smart glasses with extended battery life or rechargeable batteries?
- Do you think incorporating advanced haptic feedback technology into smart glasses would be beneficial for users?
- Would you use smart glasses for educational purposes if they incorporated augmented reality technology that could display 3D images?
- In what scenarios do you think smart glasses with advanced eye-tracking technology would be most beneficial?
- What do you think the biggest challenges would be in implementing the non-existing technologies discussed in this survey into smart glasses?
- What features would you like to see in future smart glasses?
- How likely are you to purchase smart glasses with the features you selected in question 9?

8.2. Results:

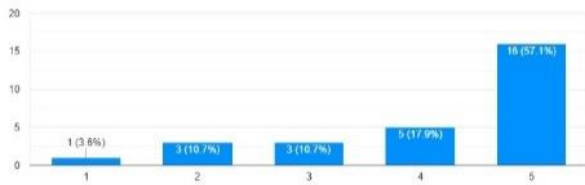
1. Would you be interested in using smart glasses with advanced haptic feedback technology?

Would you be interested in using smart glasses with advanced haptic feedback technology?



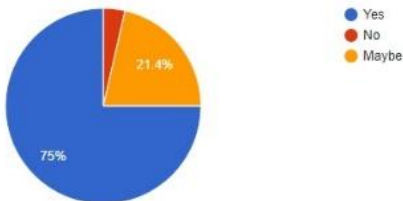
2. How interested are you in using smart glasses that incorporate biometric sensing technology?

How interested are you in using smart glasses that incorporate biometric sensing technology?



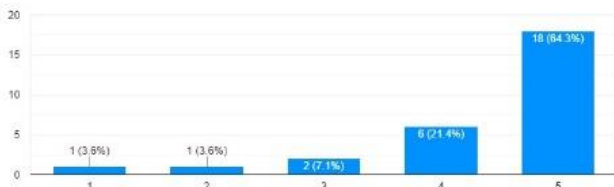
3. Would you be interested in using smart glasses that feature advanced voice recognition technology?

Would you be interested in using smart glasses that feature advanced voice recognition technology?



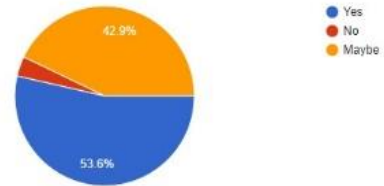
4. What do you think about smart glasses with extended battery life or rechargeable batteries?

What do you think about smart glasses with extended battery life or rechargeable batteries?



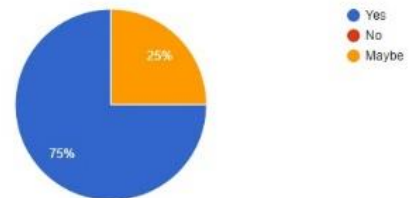
5. Do you think incorporating advanced haptic feedback technology into smart glasses would be beneficial for users?

Do you think incorporating advanced haptic feedback technology into smart glasses would be beneficial for users?



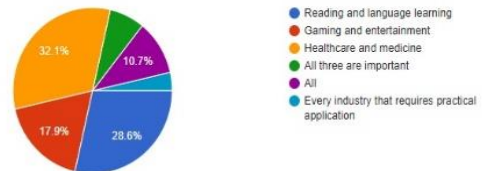
6. Would you use smart glasses for educational purposes if they incorporated augmented reality technology that could display 3D images?

Would you use smart glasses for educational purposes if they incorporated augmented reality technology that could display 3D images?



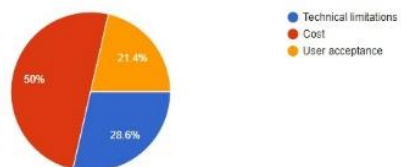
7. In what scenarios do you think smart glasses with advanced eye-tracking technology would be most beneficial?

In what scenarios do you think smart glasses with advanced eye-tracking technology would be most beneficial?



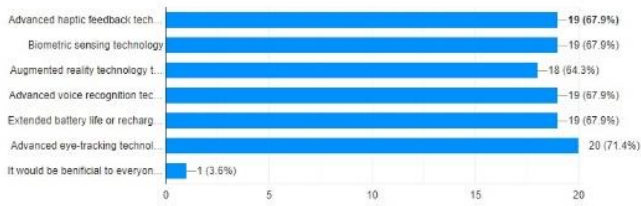
8. What do you think the biggest challenges would be in implementing the non-existing technologies discussed in this survey into smart glasses?

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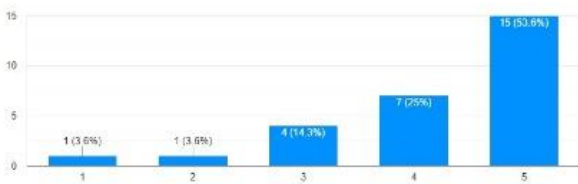
9. What features would you like to see in future smart glasses?

What features would you like to see in future smart glasses?



10. How likely are you to purchase smart glasses with the features you selected in question 9?

How likely are you to purchase smart glasses with the features you selected in question 9?



8.3. Descriptive Statistics:

Descriptive statistics is means of describing features of a data set by generating summaries about data samples. Here are some results which will helps us in finding the actual response of people.

1.Would you be interested in using smart glasses with advanced haptic feedback technology?	
Mean	1.148148
Standard Error	0.087766
Median	1
Mode	1
Standard Deviation	0.456045
Sample Variance	0.207977
Kurtosis	1.528092
Skewness	0.660833
Range	2
Minimum	0
Maximum	2
Sum	31
Count	27
Largest(1)	2
Smallest(1)	0
Confidence Level(95.0%)	0.180405

2.How interested are you in using smart glasses that incorporate biometric sensing technology?	
Mean	4.222222
Standard Error	0.222222
Median	5
Mode	5
Standard Deviation	1.154701
Sample Variance	1.333333
Kurtosis	1.230577
Skewness	-1.44093
Range	4
Minimum	1
Maximum	5
Sum	114
Count	27
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.456784

3.Would you be interested in using smart glasses that feature advanced voice recognition technology?	
Mean	1.185185
Standard Error	0.093019
Median	1
Mode	1
Standard Deviation	0.483341
Sample Variance	0.233618
Kurtosis	0.741255
Skewness	0.534895
Range	2
Minimum	0
Maximum	2
Sum	32
Count	27
Largest(1)	2
Smallest(1)	0
Confidence Level(95.0%)	0.191203

4.What do you think about smart glasses with extended battery life or rechargeable batteries?	
Mean	4.37037
Standard Error	0.200769
Median	5
Mode	5
Standard Deviation	1.043225
Sample Variance	1.088319
Kurtosis	3.593707
Skewness	-1.93219
Range	4
Minimum	1
Maximum	5
Sum	118
Count	27
<u>Largest(1)</u>	5
<u>Smallest(1)</u>	1
Confidence Level(95.0%)	0.412686

5. Do you think incorporating advanced haptic feedback technology into smart glasses would be beneficial for users?	
Mean	1.407407
Standard Error	0.110157
Median	1
Mode	1
Standard Deviation	0.572394
Sample Variance	0.327635
Kurtosis	-0.76649
Skewness	-0.27406
Range	2
Minimum	0
Maximum	2
Sum	38
Count	27
<u>Largest(1)</u>	2
<u>Smallest(1)</u>	0
Confidence Level(95.0%)	0.226432

8.4. Findings:

A survey was taken to know the view of the people about what they think regarding the technology of

Augmented reality when infused in a simple spectacle like glasses that can provide you with features. So, people gave their opinions on different features, the genres in which they would opt for and the choice of technologies they wish to see in the glasses. So, this is what the stats say:

1. 78% of the people of the total responses will use this technology with a feature of haptic feedback. While 17% Would not opt for it and 1 to 2% were unsure about it.
2. Biometric sensing 57.1% of the people voted for 5 on a scale of 1 to 5.
3. 75% People want voice recognition as a feature while 21.4% does not.
4. 64% People will use this with extendable and rechargeable batteries.
5. 75% People think these glasses will be useful in education purposes while 25% think it to be opposite.
6. Different scenarios were given to People in which this would prove useful so People's vote says:
Healthcare: 32.1%
Gaming and Entertainment: 17.9%
Reading and Language learning: 28.6%
All three ate important: 10.7%
Remaining percentages to
All Every industry that requires practical applications.
7. 50% Respondents think Cost will be the drawback while 21.4% and 28.6% think that technical limitations and user acceptance will be drawbacks respectively.

IX. Features selection of users

- Advance haptic feedback: 67.9%
- Biometric: 67.9%
- AR technology: 64.3%
- Voice recognition: 67.9%
- Eye tracking: 71.4%

(Multiple options could be selected so you can see the repetition in the percentages.)

9. 53.6% respondents voted for 5 to that they will buy the glasses with all these features in the scale of 1 to 5.

X. Conclusion

In conclusion, E.D.I.T.H glasses represent a significant development in augmented reality technology, offering several advantages and potential future implications across various industries. E.D.I.T.H glasses have the potential to transform healthcare, education, productivity, entertainment, and technology advancements, providing real-time information, immersive and interactive experiences, personalized feedback, and collaborative learning opportunities. However, there are also potential disadvantages and challenges associated with E.D.I.T.H glasses, including privacy concerns, security risks, and the need for ongoing research and development. Overall, E.D.I.T.H glasses have the potential to revolutionize the way we access and interact with digital content and information, and continued research and development in this field may lead to even more significant advancements and applications in the future.

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