# TRENDBT VOLUME I

SCOTT DOUGLAS JACOBSEN

&
SAQIF ABDULLAH

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### **About**

TrendBT is all about the latest trends in business and technology mainly focusing on Virtual Reality and Augmented Reality marketing co-founded in 2017 by Wilfrid Laurier University graduate Saqif Abdullah and Shuang Liang. Please visit our <u>Privacy Policy page</u>.



TrendBT Co-Founder Saqif Abdullah

Saqif majored in Science and Business at WLU in Waterloo, Canada. He is also exploring a career in digital marketing and entrepreneurship as well as investing. Saqif is experienced in Social Media Marketing with a demonstrated history of working in the non-profit organization management industry. He is skilled in Public Speaking, Time Management, Teamwork, Leadership. Strong media and communication professional with a Post-Graduation Certificate focused in Marketing from Conestoga College. In his spare time, he enjoys watching DC comics movies, listening to music, and keeping up-to-date with the latest technology. Saqif is a huge fan of VR and AR marketing.



TrendBT Co-Founder Shuang Liang

Shuang Liang moved to Waterloo, Canada. He graduated from university in Shanghai with a bachelor's degree in international business. He is highly motivated and very passionate about technology. He has a cross-cultural perspective and a critical thinker as he has a wide range of interest. He is currently studying software engineering at Conestoga College and living in Kitchener-Waterloo area which is considered to be Canada's tech hub or the Silicon Valley in Canada. He is a science fiction enthusiast, foodie, music lover and dreamer. He is very active in attending multiple extracurricular activities including student union, the international college student entrepreneurial organization and also tech hub in his college. He is looking for a career in the technology industry. He is a huge fan of VR and AR marketing.



TrendBT Contributor Scott D. Jacobsen

**Scott Douglas Jacobsen** is the Founder of In-Sight: Independent Interview-Based Journal and In-Sight Publishing. Jacobsen works for science and human rights, especially women's rights, Indigenous rights, labor rights, and children's rights. He considers the modern scientific and technological world the foundation for the provision of the basics of human life throughout the world and advancement of human rights as the universal movement among peoples everywhere. He authored/co-authored some <u>e-books</u>, free or low-cost. If you want to contact Scott: Scott.D.Jacobsen@gmail.com.

If you would like to join our team at TrendBT, contact us here.

### **Preface**

#### By Scott Douglas Jacobsen

In reflection on the nature of the scientific discoveries and then the engineering manifestations and technological implementations of the discoveries from science, the orientation throughout much of the scientific historical record remains the purposes and delights of human beings, even the miseries and pains.

With the modern technological waves with the replication of aspects of human intelligence placed in digital substrates and the work towards automation of human drudgery and, at times, creativity, the growth and breadth of human possibilities becomes even greater than at any other time in the history of the world.

We can develop a newfound sense of directions for human possibilities. One of those manifestations is in the increase potency in the not only the quality of potentialities before us but also in the ways to realize what we have in our minds onto the virtual world. A digital representation of our imaginations becoming ever-more real by the year.

With the improvements in the cost-access and efficiency of processing of computers now, we can see the development of a series of new media to help manifest our imaginary landscape. That technology comes in two forms, and others. The interest of TrendBT is an emphasis on the nature of the future technologies and the upcoming, and ongoing, developments in technologies of virtual and augmented reality.

The two technologies relevant for the young adult Millennial population are virtual reality, VR, and augmented reality, AR. The contents of this text amount to the news and educational items from TrendBT meant for furthering not only knowledge of but also the educational content relevant to AR and VR.

Both AR and VR represent novel developments for the technological progress of humankind with applications barely even tapped and only part of the science fiction future of decades prior. Now, even though things can be grubbier because they are manifested in the real world, we live in the science fiction future prior generations dreamed about, of which we can see the new span of possibilities from a higher plateau.

The "what" of "what will come of AR and VR and associated technologies?" like most things with technology will depend on individual human choices for how to best use them for human purposes. As with any technology at present and throughout human history, the purposes of the technology were built around the options and conveniences that these provided for human wants and desires.

The same holds true now. The main question that follows from this need for furtherance of the discussion on AR and VR is what we want to do with this newfound technology and how we want to build them around human wants and desires. Something like a Utilitarian ethic found in John Stuart Mill and Harriet Taylor Mill would help quite a lot in guiding the purposes of the technologies for the needs and whims of human beings.

Those that expand human horizons and do not limit them. The means by which all human beings can increase their emotional and cognitive reach beyond the mundane, so that the future generations only children now could realize that greater vision of possibilities that are only in our dreams now, in our imaginative landscape. One which is very different from the prior generations' imaginative landscape.

The idea of the creation of an entirely new visual and tactile landscape to even elicit real human passions and emotions, sensations, to mimic, in real-time, the movements of the human body and the nuances of the human face such as a grimace, disdain, a smile, joy, and perplexity was completely beyond the imaginations of those who have gone before us.

It gives us a tremendous power and capacity to change our vision of the future in a conscious way. Some are already realizing this and working to develop a human-friendly future with the positive and well-being increasing use of artificial intelligence. It is the same orientation of moral outlook.

How is this going to optimize wellbeing for as many people as possible? How will an expanded vision of human possibility build into this ethical framework? What will most efficaciously bring this about for our shared future, as the geographical landscape of the world continues to close and become tighter in terms of the length of time that both physical bodies and communications between two points is reduced?

Multiply that increase in spatial and informational efficiency over the total and increasing number of people in the world. You can then develop an idea of the power of technology now compared to the past, and the present to any of a number of possible futures.

TrendBT is doing its part in informing some of the current young population in order to produce some serious thinking about the possible positive futures for AR and VR technologies, e.g. entertainment, training of medical professionals, virtual dancing lessons, and so on.

As what prior generations did the to set the groundwork for our present, we too are setting the precedent for the future world now, where this will take us depends on what we do now. Education is always a part of that process, for a shared positive future.

# Virtual Reality: My Own Experience

Published by Saqif Abdullah on January 13, 2018

Recently, I visited the House of VR at on Queen St. W. at Bathurst St. in downtown Toronto. I wanted to try out their VR games. It was my first time and I wanted to experience the virtual reality for myself.

The House of VR has a handful of arcades around the city that offer VR games and the storefronts offer a wide range of games in large spaces. I went with two other people and we played the VR games. It was a 3 player game (not a multiplayer game) for 30 minutes with one VR headset and the price was \$30. Each player took turns to play the VR games so it was 10 minutes for each. There were many booths for the groups outfitted with green screens for hourly sessions. There was also a television set which displayed the user inside the virtual reality game.

After I put on the headset, the first thing I felt was excitement, the fact that I was inside the game but I had a lot of doubts as to where to go and what to do next. I had one of the staff from the house of VR guide me at the start. The guidance helped me get started and once I got the hang of it, I started having a good time. I learned how to use a gun in the virtual world and I felt like I was in a Call of Duty or Doom game, shooting monsters to gain points.

It was my first experience using a virtual reality headset. Although fun, the headset can be uncomfortable; it was heavy and tight. Since there are too many wires, it was difficult for me to remove the headset. The tightness and heaviness of the VR headsets can lead to many health problems such as migraines so I hope this can be resolved in the future.

I had knee pain on my left leg before I tried the VR experience and when I jumped from a building in the game, I had a feeling that the ground was shaking, and as a result, my knee started hurting even more. This took place a few seconds before the game ended. The overall experience was fun as I put all my energy into the VR game. I was also mesmerized and very impressed with the graphics.

Technology is very exciting in the future as it is rapidly changing in the VR industry. What VR games have you tried? What did you experience? Leave a comment below. Also, check out the article written by Zach Kotzer about the virtual reality lounge in the House of VR.

# **Augmented Reality (AR): Engaging the World**

Published by Saqif Abdullah on January 15, 2018

Augmented reality (AR) is the new technology that blurs the line between what's real and what's computer-generated by enhancing what we see, hear, feel and smell. We are living in the era of the development of modern technology and there is a great deal of attention paid towards augmented reality.

There is an area in computer science that emphasizes creating intelligent machines that work and react like humans. University professors and researchers are talking about it in the media, about how AI is different from traditional computer programs.

There currently are products that are embedded with AI systems and they are used by companies and consumers regularly. AR is one of the most related and distinctive technologies of AI. AR is the ability to insert digital objects into a camera's view and add graphics, sounds, haptic feedback and smell to the natural world as it exists. The video games and cell phones are driving the development of augmented reality such as Pokemon Go.

Pokemon Go is the most popular augmented reality game in the world, developed by Niantic for iOS and Android devices. The game utilizes the player's mobile device's GPS, giving it the ability to locate, capture, battle and train virtual creatures. The game is an addiction to many people; they are even walking on the streets playing the game on their phone without paying attention to traffic. This shows that Augmented reality is building even more engagement with customers. AR is becoming more useful because AR is used in more products and is entering into the realm of customer, support and services.

Many companies are now creating new ways to engage with their customers by using artificial intelligence to develop long-lasting and lucrative relationships. The engagement strategies are multi-sensory engagement, intellectual engagement and emotional connections. Multi-sensory engagement is all about consumers interacting with the videos that involve sight and audio. Another engagement strategy is the intellectual engagement that involves relevant and useful information for the consumers about the company's product. Emotional connection is another strategy which leads to building relationships. Besides connecting customers and businesses, this can also be used for B2B relationships.

Is Augmented Reality (AR) the next best thing in the tech development era? How is it affecting the businesses? Leave a comment below. Also, check out the article written by Gavin Finn about the importance of Augmented Reality and Virtual Reality in Business.

https://www.entrepreneur.com/article/300071

### **Chatbot: Innovative Business Solutions**

Published by Saqif Abdullah on January 16, 2018

Did you know that you can create your own bots without having knowledge of coding?

A chatbot is a computer program that is commonly known as a chatterbot or interactive agent which conducts a conversation via auditory and textual methods. These programs are designed to act just as humans would behave as a conversational partner used for various practical purposes. If you have a business, then a chatbot will offer a great opportunity for your business in the form of innovative solutions. The term chatterbot was originally coined by Michael Mauldin in 1994 who is the creator of first verbot. Verbot is one type of chatbot using the Artificial Intelligence Software Development Kit (SDK) for the Windows platform. Nowadays, chatbots are used for entertainment purposes, for research, even for social purposes in order to promote a product. Chatbots are AI-powered virtual assistants such as Google assistants and they are accessed by many organizations.

Recent developments in the technology are making chatbots very powerful and easy to use which is making them a necessity for many organizations. Many organizations are now setting up agencies that specialize in creating custom-made bots. Nowadays chatbots are created within a matter of minutes without knowledge of coding. Visual interfaces can be used to create complex bots in order to add real value to any company. Artificial intelligence including natural language processing (NLP) is a widespread technology behind chatbots as they are communicating with human beings. Chatbots are virtual assistants that can help carry out tasks and provide information without the help of other human beings, which allows companies to set up customer service bots to help increase productivity within their organization. Chatbots help organizations with complex tasks, such as placing orders, editing shipping details, updating billing information and changing account information.

Many organizations are marketing their chatbots throughout the creation process and many brands are using them in many innovative ways. Chatbots are used by organizations that are in media & entertainment, publishing, health, sports, food, retail and e-commerce, beauty and fashion, financial, utilities and social goods. Facebook has their own messenger bot that is helping many organizations with their movie showtimes, theater locations, trailer links and sending marketing and financial news to specific stores daily.

Chatbots are helping many startups and contributing to the success. What do you think of Chatbot? What are some of the innovative ways that you can think of that are helping the businesses? Leave a comment below. Also, check out the article written by Murray Newlands about starting your own bot agency.

https://www.entrepreneur.com/article/300447

https://www.yumpu.com/en/document/view/11412246/canada

http://datartisan.com/article/detail/96.html

# Mobile Platform: The Key to Digital Marketing

Published by Saqif Abdullah on February 6, 2018

According to pew records, 64% of American adults' own smartphones, and they are using them for various activities such as banking, ordering food, watching movies, reading books, and managing all manner of transportation including ordering Uber transportation. In Canada, every year starting from 2013, there has been an increase in the number of smartphone users in Canada. In 2017, the smartphone users in Canada are estimated to reach 22.7 million, and this number is forecasted to exceed 2 billion over the next few years.

Smartphone usage habits are evolving among Canadians. Smartphones are becoming a key part of everyday life alongside internet access and communication. Canadians are more comfortable with their smartphones in comparison to laptops and desktop computers. Canadians check the weather, sports scores, and social media. They also check their email, look for stock quotes, houses, travel tickets and also conduct online banking.

Even though smartphone marketing is growing and benefiting the customers, it has its downside as well. SMS marketing benefits the mobile advertisers and restaurant industry with their day to day deals that will attract more customers to the area. Drawing out the content for mobile devices such as text, images, and videos is simpler and inexpensive, and the mobile medium makes it easier to issue promotions and market incentive services to the user. People are able to carry virtual information and use it whenever they like. Marketers can get instant feedback which helps them to understand and analyze users' behaviors. Mobile marketers are able to reach their audiences very easily from different regions in Canada.

Smartphone users are using microblogging platforms like Medium, WordPress, Twitter and Facebook from their mobile phones. This is very convenient to do as long as there is a data or WiFi connection. However, the interface might be confusing to the users and does not have any particular standard as compared to laptops and PCs as mobiles are using different OS and browsers. I own a smartphone where I browse many mobile marketing blog sites particularly mobile marketer and modify. I know my mobile and content marketing as the blog site offers knowledgeable tips about optimizing your site for mobile. You can get the latest mobile marketing news, conference and advertising. The information in modify offers solutions that make websites adaptive to any device such as mobile, tablets and more.

Do you think that Mobile marketing is the key to digital marketing? Leave a comment below. Also, check out the article from Upcity about the mobile marketing blogs that can help small business clients.

https://upcity.com/blog/top-20-mobile-marketing-blogs/

https://neilpatel.com/blog/14-mobile-marketing-tips-to-drive-leads-and-sales/

http://www.dynamicpartnersgroup.com/mobilemarketing.html

# 3 Ways Virtual Reality can enhance learning in corporate training

Published by Saqif Abdullah on March 2, 2018

Virtual reality training (VRT) is the use of computer-generated 3-D simulation to immerse a user into a realistic environment where the user is presented with images, sounds, and sensations that imitate real-world situations in order to teach an individual how to behave in a corporation and get adapted to the corporate culture.

Starting from 2017, blended learning will evolve as VRT as virtual role-play. In 2020, VRT 2.0 will be truly immersive as well as an augmented reality that will showcase valuable learning records. VRT and blended learning will create a rich environment for the corporate learners. The VR trend is going to be more than the sound and vision, it will transform social activities, and there will be a standard iOS for VR, meaning it will be accessible on smartphones. The major VR games of PlayStation VR and Oculus Rift will be trendy and reach a maximum number of users.

#### A new learning experience

It's not just watching videos in a 360-degree field of view; your mind is telling you that you can do anything, but your body is saying that you can't. This is a physical experience where your knees start to buckle and at one point start to shake. VR will provide many insights to new employees during their corporate training as it will also create a virtual world that they will be particularly interested in. New employees will engage with the environment and have the ability to tour the corporation. This will impact their behavior and they will be ready to work for the corporation.

#### **Bringing People together**

More VR headsets and games will be available in the market and will be affordable, which will make them accessible in colleges and universities. Therefore, more students can use these systems not only for recreational purposes but also for educational purposes.

#### Viewers have control

VR training will shape the viewer's experience and they have full control over the workplace scenes inside the virtual world that will enhance their creativity. As a result, the productivity of the employees will increase.

Can you think of any other ways where VR is enhancing learning incorporate training? Leave a comment below. Also, check out this video about how VR is enhancing learning in education

https://www.youtube.com/watch?v=jRQzl8ewDMQ

https://www.otechnice.cz/online-deni-na-ces-2018/

# 3 Ways to Use Augmented Reality (AR) to Enhance Creative Play

Published by Saqif Abdullah on March 30, 2018

Augmented reality (AR) is the flipside of virtual reality as it takes virtual objects and brings them into your world. The real transformative aspect of this technology is its ability to enhance creativity, and as a result, it is a winning proposition. Since the advent of computers, there have been interfaces within the computer as digital tools that allow us to do things that seem like magic. Augmented reality merges the virtual world and real world into bringing the magic in the real world by using new digital tools.

#### Using Artificial Intelligence (AI) for more immersive AR experiences

The Pokémon Go phenomenon of 2016 brought augmented reality into the mainstream. After 2021, AR will be an emerging technology and it will become a basic part of people's everyday lives. Combinations of AR and AI technology can be used to create powered layered experiences that connect people with their brands. The best example of AR and AI combined technology are the smart glasses that can detect and troubleshoot issues. Smart glasses help us to view the technology within the context of existing marketing objectives and therefore boost creativity even more. It will be used to deliver more content to consumers with fewer resources, saving time and money.

#### **Augmented Creativity**

Augmented reality is making sure that humans don't lose the physical interaction with the environment around us by providing magical digital overlays on top of the creative activities. This concept is called augmented creativity. This allows users to harness their imaginations and boost their creativity. Six prototype applications are used to explore and develop Augmented Creativity in different ways.

#### Storytelling and Video content production

The biggest challenge to marketers is keeping up with the demands of content generation as 90% of marketers are saying that their needs will grow over the next two years. AR creativity has multiple apps that can be used for storytelling and video content production. The coloring book app is computer generated and allows children to create their own characters in AR settings. There is also a music and gaming app in which different styles of music and gaming concepts can be explored as they are brought into the real world.

Augmented Creativity is bridging the real and virtual worlds to enhance the creative plays. Can you think of any other ways how augmented reality is enhancing creative plays? Leave a comment below. Also, check out the article written by Symposium On Mobile Graphics And Interactive Applications 2015 about the Augmented Creativity.

http://amazingstudiotechnology.com/cleveland-augmented-reality/

## VR and AR help the blind to see

Published by Saqif Abdullah on May 30, 2018

Virtual Reality (VR) and Augmented Reality (AR) technologies are helping people who are visually impaired, and as a result, they are seeing images more clearly than they do in real life.

The reason is because the screens are very close to the eyes and they incorporate big images, bright lights, and bold texts. This is helping people with blurred vision as well because they can see things clearly. The AR contact lenses are attached either with a baseball hat or with wearable glasses. The VR lens has an embedded display directly over the eye's cornea and also includes a feature that uses color to direct the wearer, help them to magnify street signs, or warn the individual when they are in danger.

I believe that VR and AR applications, in the long run, will replace smartphones as they will project visual information directly onto the retina of the eye. RayonNova is a company that makes VR and VR wearables as they are working towards VR and AR applications and launching them in 2019. AR smart contact lenses are also another solution to plug into the sense of sight in an intimate fashion and also projects information into the retina.

AR contact lenses cure colour blindness in individuals and it augments the digital overlay. Samsung's AR vision contains lenses which are equipped with a tiny display, a camera, an antenna and several sensors that detect eye movement and eye blinks. You can blink to take pictures that will interact with the data.

eSight technology is worn like a normal pair of glasses which uses a high-definition camera that captures everything you are looking at and then displays it on two near-to-eye displays. The images are optimized, then projected onto two LED screens inside. Smart contact lenses and Smart glasses are the solutions for the most viable VR/AE applications.

Can you think of any other ways how VR and AR are helping the blind to see? Leave a comment below. Also, check out this article written by Nadja Sayej about how VR, AR contact lenses are helping the blind to see.

https://www.wareable.com/ar/virtual-reality-blind-visually-impaired-contact-lenses-191

# Ulster University Rekindling Old Buildings with Virtual Reality

Published by Scott Douglas Jacobsen on June 10, 2018

Ulster University's own Dr. Joan Condell explained the ways in which museums are going virtual. The university, among others, is involved in an international effort to create a virtual reality or VR environment for the Irish tourist sector.

The report stated, "Managed by <u>Museum Nord</u>, the €2m <u>CINE</u> project has nine full academic partners across Norway, Iceland, the UK and Ireland, funded by the Interreg Northern Periphery Programme."

Condell talked about the use of VR and augmented reality of AR to sustain and protect the cultural and national heritage. The idea is to help, in part, protect the culture as well as increase the numbers of people who visit the museums.

Condell opined, "Museums are struggling with lowering visitor rates; they constantly have to redo their sales pitch." One potential solution is to digitize the museum experience. Condell et al will work with the Donegal County Council.

The academic teams working on these AR and VR museum projects will develop interactive exhibitions in the museums.

"In addition, VR could be used to repatriate artefacts from bigger museums," Condell said, "There may be an artefact in the British Museum, for instance, that originated in Donegal. Visitors to Donegal could see an immersive AR piece; you see and experience it like the object is in front of you, when it really isn't."

The initiatives equate to ways in which to bring people together. However, these need to remain realistic.

# Parisian Graduate Students Using VR to Reduce Pain

Published by Scott Douglas Jacobsen on June 12, 2018

A bunch of graduate students in France started the "Healthy Mind" initiative to create a VR product to help people who suffer from the pain.

The basic idea comes from the intent to reduce the pain felt by people through distraction in a VR environment. The head of the emergency department at the Saint-Joseph Hospital, Olivier Ganansia, talked about the possibility for the patients to use the technology to distract from pain and anxiety while being treated in the emergency room.

With 20 or more years behind the doctors and the researchers who tests the VR equipment and software, this helps change some of the means by which some facets of healthcare get delivered to patients.

The important point about this particular case comes from the help in the emergency care area. Some are looking to this VR technology as an alternative to the prescription medications some people receive, especially with the opioid crisis ongoing.

The report stated, "One of the leaders of the project, Reda Khouadra, told Reuters that patients put on a pair of VR goggles and are taken to a faraway land while undergoing procedures ranging from stitches, to burn treatment and joint dislocations. Researchers have already found that patients have a higher pain tolerance when using the VR."

The offer in the VR for pain and anxiety is a guided tour with some interactive options and music. Some have the opportunity to virtually pain and solve puzzles. The Healthy Mind initiative won about \$20,000 from the one university in Australia.

The people behind the initiative will be meeting representatives of Microsoft in Seattle soon based on the success of their early products. This type of utility in VR is not something wholly new.

It has been used to take out teeth by dentists, to do tooth extraction. Some have seen noticeable reductions in pain. The researchers, who are from the United Kingdom, wrote some descriptions of their positive research findings.

They stated, "Our research supports the previous positive findings of VR distraction in acute pain management, and suggests that VR nature can be used in combination with traditional [medication]."

Howard Rose and Hunter Hoffman work in the bringing in of VR software and equipment into healthcare. Some see help with the phobias and psychological disorders. Hoffman has stated, "Acute pain is a perfect match for VR. You only need it for 20 minutes and it has drastic effects. If you say, 'go home and meditate,' not many patients will follow through... But if you give them a VR system and say 'go into this ancient world and meditate with monks,' they're more likely to actually do it."

### **Anne Frank Gone Virtual**

Published by Scott Douglas Jacobsen on June 13, 2018

<u>Recent reportage</u> talked about the time for the utilization of the modern virtual reality technology in order to view the Holocaust victim Anne Frank's home.

Apparently, the view is available on <u>Oculus Go</u> and <u>Samsung Gear VR</u> for the <u>Anne Frank House VR</u>. The virtual reality exhibition takes those who view the place on a trip into the Secret Annex. It is a "photorealistic detail" of the place.

The house where Frank with parents and sister stayed in hiding between 1942 and 1944.

The article stated, "The 25-minute experience explores all of the hideout's rooms, which are furnished in the style of the times. The actual Secret Annex is empty now, but the VR furnishings help to give a sense of what it was like for the occupants to live there."

It will launch with the foundation of the Anne Frank House Museum housed in Amsterdam, Netherlands (Holland). The experience will come inside of two other locations including New York, United States and Berlin, Germany.

All of this will unroll later in the year.

"Anne Frank's The Diary of a Young Girl is one of the most widely read books in the world, and the Anne Frank House Museum draws in over 1 million visitors per year. Frank died in a concentration camp after Nazis raided the Secret Annex and arrested its occupants in 1944," the article states.

Furthermore, the Develop of Strategy for Oculus, Tina Tran, opined, "One of the most promising and important uses of VR is how it can help us see history and current events from a whole new perspective that is more immersive and powerful than any other medium."

Duly note, the Anne Frank House VR will be free from the <u>Oculus Store</u>. It will provide an important experience for those who wish to see a piece of crucial history in the Holocaust.

### AR and VR for the Workforce

Published by Scott Douglas Jacobsen on June 14, 2018

Forbes reported on the future of AR and VR for the training of the workforce. It will help with the future of the workforce through the development of training systems for the managers to use in line with the employees. It has been characterized as same simulations.

It does not involve some of the risks involved in some training. "The demand for AR and VR in corporate training has caused a dramatic increase in the global market. Statistics show market growth is now projected to reach \$2.8 billion by 2023," the article stated.

The top five benefits for professional development via training with AR and VR are listed by the article author as follows:

- 1. They make training more innovative and enjoyable.
- 2. They create experiences that are impossible in any other form of training.
- 3. They teach through practical simulation rather than theoretical concepts.
- 4. They offer a practice playground that encourages users to learn from their mistakes.
- 5. They encourage employees to explore at their own pace and in their own style.

## Global Virtual Reality in Healthcare Market VR

Published by Scott Douglas Jacobsen on June 15, 2018

It <u>was reported</u> that there will be "vast benefits of <u>Global Virtual Reality in Healthcare Market</u> processes and operations."

These potential large-scale benefits have been impacting companies in the healthcare sector as the conventional and manual devices continue to give way to the efficient, software solutions. The established players and the new competitors are part and parcel of this market.

This makes for a change in the types of the classifications in the market. If you follow the link, then you will find information about the improvements in the applications, classifications, segmentations, and specifications for the virtual reality market around the world.

Healthcare may turn virtual more into the future. Companies are looking into it. They are also developing other companies that build reports to help in this marketplace as it grows into the future.

### Reduction of Children's Fears with VR

Published by Scott Douglas Jacobsen on June 16, 2018

Pediatrician, or those doctors who work with children, have been looking for ways in which to have children get immunizations. Outside of the concerns of people against vaccinations, the children can cry and scream to not have them.

It makes immunizations and other things difficult for the doctors having to work with the parents and the children when the child is having a tantrum. The fear of needles and so immunizations and vaccinations via needles are a common thing for kids.

<u>Eureka Alert</u> reported, "A pediatrician has come up with an innovative solution to distract children from their fear, anxiety and pain using a virtual reality headset. He is the first to conduct a pilot study, published in the journal Pain Management, using this technique in a pediatric setting."

There was research into humans having the capacity for limited attention and if distracted then pain will not register as much pain in them. They will feel less pain because of the distraction.

"To date, no studies have looked at virtual reality distraction during pediatric immunizations, so Rudnick decided to put his theory to the test working with two premed students and co-authors of the study, Emaan Sulaiman and Jillian Orden, in FAU's Charles E. Schmidt College of Science," the article stated.

The study looked at the efficiency, feasibility, and usefulness. As it turns out, the VR headsets helped with the reduction of fear and pain for the pediatric patients getting the regular immunization shots. The participants in the research ranged in age from 6 to 17.

# New VR Experience with Christina Ricci and John Cusack

Published by Scott Douglas Jacobsen on June 17, 2018

<u>Deadline</u> reported, "Two companies — <u>Minds Eye Entertainment</u> and <u>Sky VR</u> — have produced a scripted, live-action 360 cinematic VR experience tied to the release of the Christina Ricci and John Cusack film *Distorted*."

The film will be available in VR. That is amazing. It is really cool that this is a possibility, even now. The questions may emerge about the ways in which this plays out into the future for the movie industry. But for this movie, it is quite interesting.

A VR producer, Travis Cloyd, of the film stated, "Sometimes it's a challenge. You do have to hide the crew because the audience can see everything and everywhere... You have to make sure everyone is hidden so we have people hiding behind walls and whatever our natural sets allow."

There was a live-action portion filmed and directed by Rob King. Then actors re-shot the VR camera with further dialogue. It seems like an integration process of the technologies together.

Well, first off, the VR portion was shot immediately after director Rob King filmed the live-action portion. The actors, which also included Brendan Fletcher, then re-shot for the VR camera and with more dialogue.

Now, it is not very long. "<u>Distorted Reality</u> is a 10-minute film that is going to be distributed through <u>OneTouch VR</u> on <u>Google Daydream</u>, Oculus Go and Oculus Rift, Samsung Gear VR, and iOs. It will also be available in stereo 3D on various platforms like the Littlstar app on Sony's' Playstation VR," the report said.

## Brewmaster and the VR Experience in Gaming

Published by Scott Douglas Jacobsen on June 18, 2018

Some games are so good that you cannot ignore them. They become immersive and entertaining they feel good. They look sleek.

They draw attention into the game itself through sheer excellence. Apparently, to some reportage, one such game is called Brewmaster. It provides the full VR experience for, well, brewing. The players make gestures, nudges, and movements for the VR experience. Those act as commands for inside of the game.

As <u>reported</u>, "Dungeon Brewmaster is an early access virtual reality game available on HTC Vive and <u>Oculus Rift</u>. It's a clever riff on the job simulator genre that tasks players with concocting potions and poisons to satisfy the clientele of a working dungeon."

The brewmasters – so to speak – or brewnovices will take their virtual reality headsets and have their avatar take their movements in line with their own. They will work to become a bartender for the customers in the story.

"Gameplay unfolds through the use of gestures and movement. Players will, for example, hold a wriggly worm creature in one hand and slice its head off using a virtual knife or pour the contents of a liquid vial into a simmering pan," the article stated, "It's all very intuitive and there wasn't any learning curve in figuring out how to interact with the tools and ingredients at hand."

## **Immersion for Better Memory**

Published by Scott Douglas Jacobsen on June 19, 2018

<u>ZDNet</u> stated that University of Maryland research did one in-depth study. It was on the immersion technology of virtual reality. They, apparently, can help with the improvement of some types of memory better than traditional platforms.

However, these are full immersion technologies. "Published in the journal <u>Virtual Reality</u>, the results show that 'immersion aids,' which permit better spatial awareness than desktop screens, draw on the power of spatial mnemonics to aid memory," the reportage stated.

It was considered an exciting development in the immersive environment research literature. Because this suggests the possibility for the strengthening of memory based on a different technique of teaching: VR.

The article explained, "The researchers administered memory tests to study participants using a classical memory technique called a <u>memory palace</u>, which will be familiar to readers of <u>Moonwalking with Einstein</u>."

With the memory palace technique, the individuals will mentally arrange objects in their minds for the ability to distinguish mental locations of those objects, and so create a memory map, a palace.

That palace forms the basis of the improvement in memory. "To use the memory palace technique, a person mentally arranges objects or images they want to remember in a location, like a room in a familiar building. Known as spatial mnemonic encoding, the technique permits humans to spatially organize large quantities of information, allowing for better recall," the article stated.

With the researchers and the study, the participants in the study were asked to navigate a virtual memory palace with various photographs. The images had many familiar faces.

One group of people used a VR headset. They moved their head to view things. Another group of participants used modern desktop computer. They used the mouse and a screen to navigate.

It gives two different methodologies to explore the palaces. As it turns out, the VR group had a better recall of 8.8 percent.

One doctoral student, Eric Krokos and a lead author on the article, stated, "We wanted to see if virtual reality might be the next logical step in this progression."

### Microsoft Pulls Out of VR for Xbox

Published by Scott Douglas Jacobsen on June 20, 2018

According to <u>The Verge</u>, the large technology and computer corporation, Microsoft, has retracted its plans for virtual reality headsets for the Xbox.

Mike Nichols, the Microsoft chief marketing officer of gaming, stated, "We don't have any plans specific to Xbox consoles in virtual reality or mixed reality." He argues that the PC is the best platform for the VR and mixed reality platforms.

This, some argue, amounts to a slow-down of the VR world and technology advancement of Microsoft. Others may fill the gap.

The article reported, "In 2016, Xbox chief Phil Spencer said that the upcoming Project Scorpio console would support 'high-end VR' like that available on Windows PCs. Since Microsoft had previously partnered with Oculus to <u>support Xbox controllers</u> on the Oculus Rift, there was widespread speculation that Scorpio might work with the Rift as well."

This did not occur. Furthermore, one year after that. The corporation decided to roll out an entire line of VR headsets within a few months, at the time. Then the mixed reality announcement came out. But then the at the 2018 E3, Spencer became less excited about it.

"<u>He told *Road to VR*</u> that although he was 'long-term bullish' on VR, it wasn't ready to come to Xbox yet, and the market was 'years away.' Now, Nichols is barely even expressing interest in the platform," the article said.

There was too much excitement and too early on for the VR possibilities for the Xbox given the market for Microsoft. But Sony through the PlayStation is moving forward to develop its own headset.

The article concluded, "Microsoft is still <u>trying to shore up</u> the Xbox One's shaky position, though, in part because it overemphasized selling the <u>Kinect motion</u> <u>controller</u> early on. It's not surprising to see the company's Xbox VR plans slip away — especially since it's largely focusing on business uses for its mixed reality headsets."

## **Eye-Tracking and VR Technology Via Forbes**

Published by Scott Douglas Jacobsen on June 21, 2018

*Forbes* talked about the new gazing use of VR.

With the eye-tracking technology, I remember one psychology laboratory member working with some of this new technology is traffic research. However, there are some new aspects of eye-tracking technology being combined with the VR technology too.

"Eye-tracking technology is nothing new in itself, but it is gaining rapidly both in scope and popularity as immersive virtual experiences become more widely used both in business and leisure context," *Forbes* stated, "This type of technology is a natural fit for VR, as most headsets have inbuilt eye-tracking technology to allow them to deliver immersive experiences in the first place, as gaze is one of the primary ways in which you interact with those types of environment."

The Swedish company named <u>Tobii Pro</u> is has a new analytical tool coming online. It will be utilizing the benefits of the Tobii Pro VR. Eye-tracking studies plus the integration with the Unity environments will work in the 3D VR contexts.

There will be interesting automated features intended for visualization and measurement of what the user is seeing. This will track the navigations and interactions in the virtual reality.

The Managing Director of CCD Design & Ergonomics talked about the insight of how individual VR users will navigate and work in a virtual space.

He said, "We want to bring evidence into the design process, the visualizations tell us what people actually look at and how their attention is drawn to different design interventions we make. This methodology is so much more powerful than relying on our own intuition about what does and doesn't work. It also provides a great visual record to demonstrate behaviors to others in the design team."

The data for the eye-tracking, interaction, and navigation inside of the VR will automate and show "heat and opacity maps" to indicate areas of highest usage.

The article concluded, "With Instant access to eye-tracking analytics, brands, retailers and designers are able to analyze the key influencers of behavior and decision-making throughout the consumer journey, according to Tom Englund, President, Tobii Pro."

#### **Steam VR Summer Sale**

Published by Scott Douglas Jacobsen on June 22, 2018

According to the <u>Road to VR</u>, there is an annual summer sale by Steam on some of the best and most popular virtual reality games on the market. The discounts are significant for the annual summer sales.

Some of the top and hottest titles in the VR gaming market are included. If you have a look, you will see both the <u>Oculus and Viveport sales</u> ongoing. As noted, the sales run from June 21 to July 5 with the pricing listed here, directly from the article:

#### Under \$15

- *The Forest* \$20 \$13
- *Elite Dangerous* \$30 \$13.50
- Keep Talking and Nobody Explodes \$15 \$6
- Space Pirate Trainer \$15 \$7.50
- Smashbox Arena \$20 \$5
- Final Approach \$15 \$7.50
- *Dreadhalls* \$10 \$7
- Serious Sam 3 VR BFE \$40 \$10
- <u>In Death</u> \$20 \$13
- Vanishing Realms \$20 \$14
- <u>Thumper</u> \$20 \$8
- FORM \$15 **\$8**
- *DiRT Rally* \$60 \$12

Rift & Vive Summer Sales Offer Big Savings on Hundreds of VR Titles

#### \$15 to \$30

- *Rez Infinite* \$25 \$15
- *Onward* \$25 \$15
- The Talos Principle VR \$40 \$20
- Sairento VR \$30 \$22.50
- *I Expect You to Die* \$25 \$15
- Sprint Vector \$30 \$21
- Subnautica \$25 \$20
- GORN \$20 \$15
- The Invisible Hours \$30 \$15
- Payday 2: Ultimate Edition \$80 \$15
- Project Cars: Game of the Year Edition \$82 \$20

- <u>Project Cars 2</u> \$60 **\$24** Over \$30
- <u>Ubisoft VR Bundle (Star Trek Bridge Crew, Eagle Flight, Werewolves Within)</u> \$110 \$36
- The Elder Scrolls V: Skyrim VR \$60 \$42
- *Fallout 4 VR* \$60 \$42
- <u>Crowteam VR Bundle (The Talos Principle VR, Serious Sam VR 1-3, Serious Sam VR: The Last Hope)</u> \$200 \$35
- X-Plane 11 \$60 \$40

### Valve's New Knuckle Controllers

Published by Scott Douglas Jacobsen on June 23, 2018

Engadget reported on the new knuckle controllers from Valve.

These are the new developments on the new vertical-grip controllers for virtual reality back from 2016. The functional models have been sent out as of 2017. Now, there is another version called the EV2 with changes to the straps, buttons, and sensors. These provide finger motion.

The pressure of touch permits the VR experience of grabbing and squeezing the objects inside of the game.

As stated in the reportage, "Valve originally introduced its vertical-grip "Knuckles" controllers for VR in 2016 and shipped working <u>models</u> to developers last year. Now the company <u>sending</u> game makers another version, the EV2, that has revamped buttons, straps and a slew of sensors that essentially translate finger motion and pressure to let you touch, grab and squeeze objects inside games."

The changes to the 2016 model for the EV2 are the Steam Controller-style touchpad. It was replaced with a shrunken version, which works with an oval "track button" that can measure the force and the touch.

"That's flanked by traditional inputs: A joystick (by developer demand, Valve noted in a blog <u>post</u>) and standard circular buttons," the reportage continued, "The strap is adjustable for different hand sizes and pulls tight to let players let go of the controller completely without dropping it — which could be key for the pressure inputs."

The new sensors of the EV2 actually track the pressure and the force of the wielder, which may imply some things in the future for the VR developer who wants the players to grab things inside of the real world. Now, the battery life can last about 6 hours. Videos are in the links.

## **Skyrim VR**

Published by Scott Douglas Jacobsen on June 24, 2018

**Engadget** spoke on the new VR for the Bethesda hit game Skyrim.

The game had a great update with the incorporation of a VR. It was lauded by others, and others had less than positive perspectives on it. It has been a rather venerated role-playing game in the video gaming world.

"Bethesda's Skyrim went <u>full VR</u> about seven months ago, and it's now getting a pretty significant update. That's a good thing, as not everyone was <u>super pleased</u> with this version of the venerable RPG. According to <u>UploadVR</u>, the title will receive improved visuals, a new main menu and some significant changes to the Move controller configuration," the article stated.

Alongside the VR updates, there were some patches to improve the visuals of the game. For good reason, as the incorporation of a massive change from a controller to eye-wear, the visuals would need to improve to match the more immersive feel of the environment.

The article continued, "The Move controller will now let you move backwards with the X buttons, swim realistically in water and show hands (instead of Move controllers) when you put your weapons away. Better yet, there's a new realistic bow aiming option that uses both Move controllers to aim, an adjusted angle for spell targeting, new map markers and several bug fixes."

There is a <u>full list of updates</u> in the PS4 *Skryim*. PC has not been given the updated version of the game as of yet.

# **Oculus TV Operational**

Published by Scott Douglas Jacobsen on June 25, 2018

According to *The Verge*, the Oculus now has the Oculus TV.

This is a hub for the flatscreen video in VR. It will go "on the <u>standalone Oculus Go</u> headset." Very cool.

The reportage stated, "Oculus TV was announced at last month's F8 conference, and it ties together a lot of existing VR video options, highlighting Oculus' attempts to emphasize non-gaming uses of VR. The free app features a virtual home theater with what Oculus claims is the equivalent of a 180-inch TV screen."

There will be a number of streaming provisions with video services. These will coincide with some subscription-based platforms including Showtime. Some will be free. Oculus TV has been called a "VR set-top streaming box."

Oculus is in the works with other companies to increase the number of networks incorporated into their possible services.

However, the article cautions, "The whole idea still has drawbacks: that 180-inch screen, for instance, will look a bit fuzzy with the Oculus Go's limited resolution. Oculus TV also conspicuously doesn't support YouTube, which is only available on the Oculus Rift through Steam."

# **Google VR Painting System**

Published by Scott Douglas Jacobsen on June 26, 2018

*The Verge* spoke on the new Google painting VR experience.

The new <u>VR art tool Tilt Brush</u> allows for a variety of skill settings for the VR painters. The company acquired the VR studio that actually created the Tilt Brush in 2015. Now, it has introduced the <u>multiplayer mode</u> as well as the and <u>a Unity integration to animate drawings</u>.

The article stated, "In its latest update, Google has added 12 new brushes with different textures, volumes, and more sound effects. It has also added a beginner and advanced mode. Users who first open the app will see the main features, and they can press the advanced mode button to access more features. There is no intermediate mode."

There was also the inclusion of the Pin Tool to permit the user to have something like the <u>Photoshop's locked layers</u>. Apparently, you can choose particular objects and then lock in place while you then edit around the area. That is actually about as useful as the copy-and-paste function.

That is to say: highly. Then there are also the other ubiquitously utilitarian functions of "select-all" and "deselect," so that the users "will have an easier time editing a sketch."

#### Home Renovations and VR

Published by Scott Douglas Jacobsen on June 30, 2018

<u>Engadget</u> talked about the new technology here. It is using VR technology for the benefit of home decor.

The BBC looked into the world of VR some more with a property show. In it, the homeowners can explore the 360-degree virtual renderings of their houses prior to the renovations. This is revolutionizing the home renovation world.

"In the BBC Two show, *Watch This Space*, couples strap on VR headsets and see designs from two architects, who have crafted virtual renderings of the remodeled homes. The couples will select a design, then get to work on making their dream home a reality. Production on *Watch This Space* is underway," the article stated.

The exploration of this new technology in something important to most people, the look and feel and style of their home, is a relevant step in the mainstreaming of these technologies.

# **Oculus Varifocal Half-Dome**

Published by Scott Douglas Jacobsen on June 30, 2018

Oculus Research's Douglas Lanman, who has since moved to Facebook's Reality Labs, was at the 2018 <u>SID Display Week event</u>. He was part of a session about 40 minutes long to show the most recent VR hardware developed by his team.

He was talking about the immersive VR environments and the Oculus Varifocal Displays. A varifocal display is also known as a multi-focal plane head-mounted display or an HMD technology. It works to deal with one of the problems inherent in the extant stereoscopic displays.

In the current technology, the user's eyes have to work to correct for the fixed focal distance. But then there are the changes in the angles of convergence in order to see the 3D content. The content will be rendered at different depths.

The focal plane in these new technologies is dynamically controlled. They can help with visual fatigue and other problems inherent in the older technology of which these ones hope to replace.

"It makes for a pretty fascinating watch and, eventually, leads to the Half-Dome prototype that Facebook first teased at its F8 conference last month. This new device has a massive 140-degrees field of view with varifocal optics and more," the article stated, "We don't know when/if we'll see the Half-Dome released as a true successor to the Oculus Rift but hopefully we'll have more to talk about at this year's Oculus Connect developer conference. That takes place this September."

### **New Innovation for Virtual Business**

Published by Saqif Abdullah on July 2, 2018

Oculus rift for business' bundle is offering a package for commercial use and it includes warranty and license. According to the Oculus site, this week the company dropped the price and announced it in Australia, Japan, New Zealand, and Taiwan. The business bundle of Oculus Rift includes Rift headsets, Touch controllers, three sensors, extra face cushions, cables, preferential customer support and a warranty as well as license. The Rift bundle announced a price cut of \$900 to \$800 as they are competing Vive Business edition (\$1300) and Vive pros (\$1600 for the full enterprise package).

Tech startup in British Columbia, called Finger Food Studio is solving complex business problems using Oculus Rift business bundle and other VR/AR/MR technology. They are using holographic solutions, cognitive computing and the Internet of Things to improve the ROI of businesses, as a result, they are speeding up the workflow. They are the first company in Canada to become an official Microsoft HoloLens agency partner and also one of the well-known reality companies.

What other innovations do you know about the VR business? Leave a comment below. Also, check out this article written by Ben Lang about how Oculus Cuts Price on Rift Business Bundle, Now Shipping to Four New Regions and it gives us insite vr.

# New Video Game Genre with VR in the next 5-25 Years

Published by Scott Douglas Jacobsen on July 11, 2018

According to *Venture Beat*, there has been some reportage on the potential future for the VR environment and technologies.

<u>The London Heist</u> is a game for the PlayStation VR founded in 2016. Now, there is work beginning on the shooter game called <u>Blood & Truth</u>. The lead designer of the newer game has been pointing to the expected or extrapolated developments for the next 5-25 years with the video genre emerging.

A video game genre focused on the VR experience and built for the VR simulations and technologies that are ergonomic for human use.

The article stated, "Speaking at the Develop: Brighton conference (via MCV), Michael Hampden offered predictions for the next 5, 10, and 25 years, saying that VR will soon become more compelling — and then ubiquitous."

Within and over the years of 2018-2023, we will find an entirely new set of video gaming possibilities becoming more and more mainstream and then entirely mainstream alongside other video game developments.

"Many VR titles today are ports of non-VR titles, but Hampden suggests that new games should be designed from the ground up for VR. He advised developers to start by understanding why they selected VR as a medium and then differentiate their experiences using VR "presence," surround audio, distinctive input methods, and head tracking," the article described.

An important step in this development is the consistent and customizable per user VR interface; something individuated for each and every video gamer. Especially important for the motion-sensitive video gamers or "users," the VR options will work to improve the experiences for even those video gamers to be able to enjoy this new genre. No motion sickness or reactions like this.

These will begin to overlap with the medical sectors as well, think robotic surgery or VR surgery. I could imagine surgeons practicing with the surgeries common to their experience with the VR environments and apps built for medical communities.

"Hampden expects that a consistent design language will be established for VR, and that developers will learn how to use customization — including controller and movement options — to reduce motion sickness and improve experiences for sensitive players," the article stated, "As a result, the next five years will see VR gain true killer apps, and become more popular in both the mobile and medical sectors. By the 10-year mark, Hampden expects that haptic feedback will be part of the VR experience — and 'a game changer' as users will be able to feel objects down to the texture level. This will make VR experiences more immersive, and enable further 'new genres of VR games to emerge."

## The Macallan Distillery in VR

Published by Scott Douglas Jacobsen on July 21, 2018

According to <u>Engadget</u>, the ability to travel to Western European nations such as Scotland can be cost prohibitive, even with the reduction in the total cost in recent decades given the improving efficiency of travel overall.

In the light of these difficulties in travel for some people, they are going to be able to opt for something for cost-effective given their financial limitations in the future; this may be a technology that expands in the 2020s, too.

It stated, "To help connoisseurs live out their dreams of traipsing through its facilities, The Macallan has created the Macallan Distillery Experience. <u>VRFocus</u> describes it as a '4D multi-sensory' group tour that guides folks through the company's process for making its Single Malt spirit."

With these virtual reality representations of important venues for many people, including distilleries, world travelers get some time to view the Macallan distillery with the VR technology ascendant in the world now.

"Along the way you'll explore the Scottish distillery the estate it resides on, learning about the outfit's history along the way. Visitors will step into a '15x15x15 cube-like projection structure' with 360-degree videos beamed to the installation's walls," the reportage continued.

In 2016, Macallan was experimenting with some of the more primitive technology for virtual reality simulations of their distillery. It included a 360-degree video with a 12-year double cask liquid. It was scents and wind machines in order to facilitate the illusion of the real world Macallan distillery experience.

"It will debut next week in New York at a private event in Brooklyn on the 23rd, and a few days later it'll take up temporary residence at Grand Central Station, running from the 25th through the 27th, National Scotch Day. Everyone not in New York will have to make do with talking a walkthrough via their home VR devices," the article announced, "Hopefully if Macallan hands out samples it'll happen *after* you take the headset off. Shooting the spirit is kind of beside the point, VR can make you <u>sick while sober</u> and adding booze to the mix can exacerbate that uneasy feeling."

# Summer's Waning Months and Return of School

Published by Scott Douglas Jacobsen on July 26, 2018

There are a number of things to be excited about for the tail end of the summer season.

One of them is a more moderate climate. Another is the fresh start to all things academic. It provides the basis for a new look on the educational environment. Also, it is a time to snag some sweet deals online to see if there are any cheaper school supplies.

As it turns out, that is true. There are a large number of companies that target this time of the year to see if the customers are prepared out take advantage of the great deals available for them well ahead of the incoming months.

Many of us are and want to make those timelines tight to the sales' openings because you never know who may be wanting to snag those sales deals ahead of you. <u>In fact</u>, Google has one at the <u>Google store</u>, you can get up to 3 figures off a variety of items.

Take, for example, the Pixel smartphone, you can get \$200 off the phone, which comes with the complimentary or free Daydream View VR headset with it.

# VR for Space with PlayStation

Published by Scott Douglas Jacobsen on July 30, 2018

There is always something happening in the news with the rise in the VR world. In particular, we are finding some of the major consoles producing games at a dizzying pace and, indeed, keeping apace with the rapid technological trends facing us.

According to <u>Eurogamer</u>, the PlayStation VR has a space-based science fiction video game. It is called Detached. It has been claimed as a major experience for those in the VR industry, consumers and makers.

As reported, "The entire game is set in zero gravity, meaning the player character in Detached has a full, six degrees of freedom control scheme; similar to standard 6DoF games like Descent or Sublevel Zero."

You can walk in all directions with new types of motion not seen in other video game, and facilitated by the VR experience. It is quite wonderful on the face of it. As the technology for virtual reality continues to develop, we will begin to see more and more video game immersive reality experiences akin to this; something apart, even far away, from normal experience and regular physics experienced in everyday life.

"Now, I consider myself to have a pretty steady set of VR legs but even for me, some of the movements here had my stomach lurching. The yawing especially sent my inner-ear into meltdown and I felt rather peculiar for about 5 hours after removing the headset, even though I'd settled into the control scheme after about an hour of play," the reporter opines.

It has the modern beauty of a well-crafted game and a stunning experience visually, especially with the immersive VR gameplay for the user. Happy gaming!

# The Bombing of Hiroshima in VR

Published by Scott Douglas Jacobsen on August 6, 2018

Japanese students are working to recreate the bombing of Hiroshima with virtual reality.

It was the time when the world went from its ultimate destructive experiments to the reality of implementation on a nation in a time of war: America dropped nuclear bombs on Nagasaki and Hiroshima in Japan.

Many high students, Japanese ones, are now working feverishly to produce a virtual reality experience of the moments prior to the bombing of Hiroshima. It amounts a before and after of the bombing developed and experienced in virtual reality through the hard work of Japanese students.

The work is meant to remind every one of the possibilities of human technological destructive capacities and to not let this happen anymore. It killed 140,000 people. Then there was another only three days later killing 70,000 people in Nagasaki. Within six days, Japan surrendered; thus, ending WWII, this was dramatic, pulverizing to the spirit, and raised questions to future generations about the prospects of human survival in the era of the atomic bomb.

With the virtual reality headsets, the individuals can go to businesses and buildings that once existed prior to the bombing and then see the aftermath of the atomic glow and expulsion of the living.

For the project, students did the proper study of the photographs, postcards, and even interview some of the living survivors of the bombings. The computer graphics then were matched to these various forms of informational points to recreate the experience of the pre- and post-bombing of Hiroshima with the atomic bomb.

## The \$90 Billion Industry of VR

Published by Scott Douglas Jacobsen on August 7, 2018

One of the biggest and predicted-to-increase industries is the virtual reality and augmented reality industry.

It is estimated at <u>about \$90 billion</u>. The estimated value of the virtual reality and augmented reality markets, by only 2022, will be about \$105 billion. It is estimated at \$90 billion for AR alone. The applications are so wide-ranging that the estimated worth of the entire market continues to expand and expand into the tens of billions of dollars.

The overall price-tag of the market is expected to continue to increase with the work of Facebook to try to have as many as one billion users of the Oculus system. If that pans out, then the overall worth of the market will skyrocket as a result of this important maneuver of the Facebook. Other aspects of this are that the inclusion of Facebook into this will lead to others wanting in on the same technological-financial action.

As reported, "Qualcomm and Apple, for example, both ambitiously rolled out depth sensing capabilities via dueling camera modules. Depth sensing is considered a key ingredient to unlocking useful AR in phones and tablets. Google and Apple, meanwhile, are backing AR via their competing SDKs, <u>ARCore</u> and <u>ARKit</u>. Digi-Capital projects a <u>900 million</u> installed base for the SDKs by the end of the year, hinting at the coming ubiquity of AR technology."

### WWII, Lancaster, Via VR

Published by Scott Douglas Jacobsen on August 9, 2018

<u>Silicon Republic</u> reported on some of the new work to remake the Second World War more experiential, more virtual – through VR.

Innovative Waterford and Immersive VR Education are working to recreate WWII in Berlin in 1943. In particular, the bombing raid run done by Lancaster. It is part of a BBC effort to celebrate the RAF. The experience is called *1943: Berlin Blitz* to experience the journey of the bombing raid that was at the highest points of WWII.

There will be anti-aircraft shells around the people undergoing the experience with vivid representations of the bombing raid. There will be commentary provided alongside the journey of the bombing.

The Co-Founder of Immersive VR Education, Sandra Whelan, stated, "The Berlin Blitz was an exciting project for us and working with BBC Northern Ireland's 'Rewind' archive innovation team, and the BBC's central VR Hub has been a fantastic experience... Initiatives like this really allow us to move forward on our primary goal, which is to bring immersive technologies such as AR and VR to distance learning, and to transform the ways in which people all over the world learn about and experience events, both past and present."

With the provision of a VR experience for the height of WWII, there may also be the possibility to reproduce these experiences for the even broader, general public for vivid educational experiences. VR can be and is be used for educational purposes. In fact, there are a number of companies on the rise to work within this world to develop the technologies necessary to provide immersive education.

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