### FacebookGaming Adds Co-Streaming

Brandy Shaul 160 words 5 October 2021 Adweek ADWE English Copyright 2021. Adweek

<u>Facebook Gaming</u> introduced co-streaming for all content creators on its platform, not just those in the company's <u>Facebook Gaming Partners</u> program.

This co-streaming feature will allow all gaming creators to stream with up to three other creators at the same time. To co-stream, a gaming creator will need to tag another content creator, and that content creator will need to tag them back.

Facebook Gaming said creators can tag another gaming creator for co-streaming in three ways: from the Live Producer left rail when they're going live, from the Live Producer Gaming Tab edit stream module and from the Stream Dashboard edit stream module. Creators will be able to change their co-streaming status while livestreaming "by editing the stream details module."

Once creators start co-streaming, viewers will be able to quickly view each user's stream so they can see what's happening from different perspectives.

Document ADWE000020211006eha50000a



### FacebookGaming DOWN today: Can't watch your favourite streamers? Here's why

Gary Jones 409 words 5 October 2021 03:22 express.co.uk EXCO English Copyright 2021

FACEBOOK Gaming is down today and there's a good reason why fans can't watch their favourite streamers.

This article contains affiliate links, we may receive a commission on any sales we generate from it. Learn more

UPDATE: More news has been shared today by Mike Schroepfer, the CTO at Facebook, providing further insight into what has forced Facebook servers down. The announcement posted on Twitter reads:

"Sincere apologies to everyone impacted by outages of Facebook powered services right now. We are experiencing networking issues and teams are working as fast as possible to debug and restore as fast as possible."

Facebook Gaming remains down tonight for many users and it's unclear when it will be back online for everyone to access.

ORIGINAL: While Twitch remains open, Facebook Gaming is down today alongside many other services.

The good news is that Facebook is aware of the outage, which isn't surprising, as the whole Facebook site and social media platforms is currently offline for thousands of users.

The downside is that we don't know how long it will take for Facebook Gaming to return. And until we learn more from Facebook and its support team, this is how things will remain.

The latest news on the Facebook outage is that engineers are looking into the problem. But unlike with other outages, this isn't localised to just one of the company's big services.

WhatsApp is currently not sending any messages, and Instagram remains unavailable and without a log in option.

The latest support message from Facebook reads: "We're aware that some people are having trouble accessing our apps and products.

"We're working to get things back to normal as guickly as possible, and we apologize for any inconvenience."

It should be noted that while many people are unable to use Facebook services right now, the number of outage reports has started to drop.

This suggests that things are improving and that servers could be coming back online in the near future. However, as there is no ETA being provided by the company, it's impossible to say exactly when Facebook Gaming will be back online.

MFL...

Related articles Fortnite update 3.3 out now: Patch notes for surprise new download PlayStation Now Leak reveals huge new PS4 game PlayStation Plus October 2021 free games: Shock PS4 reveal by rival

Document EXCO000020211004eha4005eh



Lifestyle, Tech

Valve's secret virtual reality headset is codename 'Deckard' and could take on Facebook's Oculus Quest

Adam Smith 464 words 30 September 2021 19:50 Independent Online INDOP English

© 2021. Independent Digital News and Media Ltd. All Rights Reserved

Valve reportedly has two designs for the virtual reality headset, one that connects to a PC and one that can be used without any cables

Video game company <u>Valve</u> is secretly working on a virtual reality headset codenamed "Deckard", according to leaks and a new report.

Company patent applications reference the device via its codename, with multiple iterations of the headset discovered alongside a "proof of concept" version, first found by YouTuber Brad Lynch.

The device will seemingly use SteamVR in both a "prism" and "standalone system layer", and although it is unclear exactly what those descriptions refer to "standalone" could mean that the system will work without a connection to a computer.

Valve, according to sources who have spoken to <a href="Ars Technica">Ars Technica</a>, reportedly had two designs for virtual reality headsets: one that would connect to a PC, and one that would use a built-in processor.

Other specifications found include references to 160MHz wireless signals, which could point to a standalone system but would also match the Wi-Fi 6 controller found in Facebook's Oculus Quest 2 headsets, so is not a guarantee. There is also a hint of processing built-into the headset as opposed to sending calls to a gaming PC.

According to Ars, Valve initially had difficulty getting "inside-out tracking", which use cameras mounted on the headset to map the room, to meet the quality of the Oculus Quest 2, but such systems may have improved in quality since.

In the future, virtual reality devices could use lenses that are closer to a user's face, which may offer better weight distribution, comfort, and performance – and it is suggested that is the direction Valve is now moving towards.

Valve did not respond to a request for comment from The Independent before publication, but a virtual reality headset is not the only product the company has coming.

The Steam Deck, a handheld computer similar to the Nintendo Switch, was announced last July. As well as being able to play games on its own screen, it would also have an accompanying dock to plug it into external displays.

As Ars points out, though, Valve has a long record of starting projects and then killing them before the consumer sees them, such as the infamously rumoured Half Life 3 video game, but these hints indicate that a standalone VR headset from the company is at least being considered.

Read More

The console shortages are going to last for a lot longer, Xbox boss says

Bitcoin price rises as crypto analysts predict second leg of bull run

US mayor pledges to give \$1,000 of bitcoin to all residents of his town

Document INDOP00020210930eh9u0048y



#### News

Facebook's chief technology officer Mike Schroepfer to step down with social giant's virtual reality boss to take over

ReutersRonny Reyes For Dailymail.Com 469 words 23 September 2021 04:56 Mail Online DAMONL English Copyright 2021

- \* Mike Schroepfer, Facebook's longtime CTO, said he will step down in 2022
- \* Schroepfer has been with the tech giant for 13 years and will remain part-time
- \* Andrew Bosworth, who leads Facebooks augmented and virtual reality projects has been tapped to replace Schroepfer
- \* Bosworth is said to lead Facebook's ambition to create a 'metaverse' internet experience as the next, big computing platform

Longtime Facebook executive Mike Schroepfer announced on that he was stepping down as the company's chief technology officer on Wednesday.

Schroepfer said in a Facebook post that veteran leader Andrew Bosworth, who heads up the social media company's augmented reality and virtual reality efforts, including products like its Oculus Quest VR headset, will take over the role in 2022.

Schroepfer, who is known as 'Schrep,' has spent 13 years at Facebook and said he would transition to a part-time role as the company's first Senior Fellow sometime next year.

Bosworth, or 'Boz,' created Facebook's AR/VR organization, which was renamed Facebook Reality Labs in 2020.

'As our next CTO, Boz will continue leading Facebook Reality Labs and overseeing our work in augmented reality, virtual reality and more, and as part of this transition a few other groups will join Boz's team as well,' CEO Mark Zuckerberg said in a message to employees that was posted on Facebook's blog.

'This is all foundational to our broader efforts helping to build the metaverse, and I'm excited about the future of this work under Boz´s leadership,' he said, referring to the Silicon Valley idea of shared spaces that merge the digital and physical worlds and can be accessed through different devices.

Facebook is under pressure from global regulators, lawmakers and civil society groups who have criticized it over abuses on its platform such as extremism and misinformation and want it to improve on a slew of issues including transparency, its content moderation and recommendation systems, and its approaches to user privacy and safety.

The company has been pushing its role in building an embodied internet, or 'metaverse,' which Zuckerberg is betting will be the next big computing platform.

In July, the company said it was creating a new product team to work on these ambitions, as part of Facebook Reality Labs.

Zuckerberg said Schroepfer's new role would include helping the company recruit and develop technical talent and foster investments in artificial intelligence.

Other central leaders who have left the company in recent months include the head of Facebook's main app, Fidji Simo, who left to become Instacart CEO, and global ads chief Carolyn Everson, who was hired as the start-up's president.

Document DAMONL0020210922eh9m00798

# Virtual Reality Headsets Market to Observe Strong Development by Facebook, Sony, Samsung, Microsoft

640 words 17 September 2021 iCrowdNewswire ICROWDN English

© Copyright iCrowdNewswire LLC 2021. All rights reserved

Advance Market Analytics published a new research publication on "Global Virtual Reality Headsets Market Insights, to 2026" with 232 pages and enriched with self-explained Tables and charts in presentable format. In the Study you will find new evolving Trends, Drivers, Restraints, Opportunities generated by targeting market associated stakeholders. The growth of the Virtual Reality Headsets market was mainly driven by the increasing R&D spending across the world.

Some of the key players profiled in the study are:

Sony Corporation (Japan),HTC Corporation (Taiwan),Facebook Technologies, LLC.(Oculus) (United States),LG Electronics Inc (South Korea),Samsung Group (South Korea),Microsoft Corporation (United States),Razer Inc (United States),Google LLC (United States),FOVE, Inc.(United States),Magic Leap, Inc. (United States)

Get Free Exclusive PDF Sample Copy of This Research @ https://www.advancemarketanalytics.com/sample-report/47608-global-virtual-reality-headsets-market

Scope of the Report of Virtual Reality Headsets

A virtual reality (VR) headset is a device which is used to wear over eyes same as a pair of goggles. VR headset contains Liquid Crystal Display (LCD) or Organic Light-Emitting Diode (OLED) screen, & head motion tracking sensor to offer effective 3D picture. It delivers virtual reality experience for (3D) three dimensional simulations, computer games, as well as other applications including play stations, movies, etc. The sensor tracks the head motion & provides 3D image with up to 360 degree field of view with head movement. These are widely used with computer games, also they are used in other applications, such as simulators and trainers. Increasing demand from end use industries is likely to impel the global VR market growth over the forecasted period.

The titled segments and sub-section of the market are illuminated below:

by Type (Handheld, Smartphones Enabled, PC-connected), Component (Head-mounted display, Head motion tracking sensor, Stereo sound system, Controllers, Display screen), End User (Games & entertainment, Military and law enforcement, Retail, Healthcare, Automobile, Education, Other)

Market Trend:

Increasing demand for high quality & effective picture

Market Drivers:

Increasing smart phone adoption globally Growing technology awareness

Market Opportunities:

Developments in 3D technology

Region Included are: North America, Europe, Asia Pacific, Oceania, South America, Middle East & Africa

Country Level Break-Up: United States, Canada, Mexico, Brazil, Argentina, Colombia, Chile, South Africa, Nigeria, Tunisia, Morocco, Germany, United Kingdom (UK), the Netherlands, Spain, Italy, Belgium, Austria, Turkey, Russia, France, Poland, Israel, United Arab Emirates, Qatar, Saudi Arabia, China, Japan, Taiwan, South Korea, Singapore, India, Australia and New Zealand etc.

Have Any Questions Regarding Global Virtual Reality Headsets Market Report, Ask Our Experts@ <a href="https://www.advancemarketanalytics.com/enquiry-before-buy/47608-global-virtual-reality-headsets-market">https://www.advancemarketanalytics.com/enquiry-before-buy/47608-global-virtual-reality-headsets-market</a>

Strategic Points Covered in Table of Content of Global Virtual Reality Headsets Market:

Chapter 1: Introduction, market driving force product Objective of Study and Research Scope the Virtual Reality Headsets market

Chapter 2: Exclusive Summary - the basic information of the Virtual Reality Headsets Market.

Chapter 3: Displaying the Market Dynamics- Drivers, Trends and Challenges & Opportunities of the Virtual Reality Headsets

Chapter 4: Presenting the Virtual Reality Headsets Market Factor Analysis, Porters Five Forces, Supply/Value Chain, PESTEL analysis, Market Entropy, Patent/Trademark Analysis.

Chapter 5: Displaying the by Type, End User and Region/Country 2015-2020

Chapter 6: Evaluating the leading manufacturers of the Virtual Reality Headsets market which consists of its Competitive Landscape, Peer Group Analysis, BCG Matrix & Company Profile

Chapter 7: To evaluate the market by segments, by countries and by Manufacturers/Company with revenue share and sales by key countries in these various regions (2021-2026)

Chapter 8 & 9: Displaying the Appendix, Methodology and Data Source

Finally, Virtual Reality Headsets Market is a valuable source of guidance for individuals and companies.

Read Detailed Index of full Research Study at @ <a href="https://www.advancemarketanalytics.com/buy-now?format=1&report=47608">https://www.advancemarketanalytics.com/buy-now?format=1&report=47608</a>

Document ICROWDN020210917eh9h001e7

## Virtual Reality in Gaming Market Giants Spending Is Going To Boom | Microsoft, Nintendo, Linden Research, Facebook

618 words 14 September 2021 iCrowdNewswire ICROWDN English

© Copyright iCrowdNewswire LLC 2021. All rights reserved

Advance Market Analytics published a new research publication on "Global Virtual Reality in Gaming Market Insights, to 2026" with 232 pages and enriched with self-explained Tables and charts in presentable format. In the Study you will find new evolving Trends, Drivers, Restraints, Opportunities generated by targeting market associated stakeholders. The growth of the Virtual Reality in Gaming market was mainly driven by the increasing R&D spending across the world.

Some of the key players profiled in the study are:

Sony Corporation (Japan), Microsoft Corporation (United States), Nintendo Co., Ltd. (Japan), Linden Research, Inc. (United States), Electronic Arts Inc. (United States), Facebook, Inc. (United States), Samsung Electronics Co., Ltd. (South Korea), Google LLC (United States), HTC Corporation (Taiwan), Leap Motion, Inc. (United States), Tesla Studios (United Kingdom), Qualcomm Incorporated (United States)

Get Free Exclusive PDF Sample Copy of This Research @ https://www.advancemarketanalytics.com/sample-report/31524-global-virtual-reality-in-gaming-market

Scope of the Report of Virtual Reality in Gaming

Virtual reality in gaming is a new generation of computer games with virtual reality technology that gives players realistic and immersive simulation of a three-dimensional environment. Virtual reality is tending in the gaming industries that have got benefited from this immersive technology. These games can be played on specialized game consoles, standalone systems, or using advanced laptops and PCs that can power the leading VR headsets such as Oculus Rift, HTC Vive, and Lenovo Mirage Solo.

The titled segments and sub-section of the market are illuminated below:

by Type (Hardware (Headsets, Devices, Glasses, and Gloves), Software), Game Type (Individual Virtual Reality Games, Multiplayer Virtual Reality Games), Compatibility (MMOs, Smartphones, Casual Web games, Console)

Market Trend:

Increased Penetration of the Internet Worldwide

Market Drivers:

Increased Adoption of Virtual Reality in Gaming Technological Advancements in Virtual Reality in Gaming

Market Opportunities:

Rise in the Investments in Virtual Reality

Region Included are: North America, Europe, Asia Pacific, Oceania, South America, Middle East & Africa

Country Level Break-Up: United States, Canada, Mexico, Brazil, Argentina, Colombia, Chile, South Africa, Nigeria, Tunisia, Morocco, Germany, United Kingdom (UK), the Netherlands, Spain, Italy, Belgium, Austria, Turkey, Russia, France, Poland, Israel, United Arab Emirates, Qatar, Saudi Arabia, China, Japan, Taiwan, South Korea, Singapore, India, Australia and New Zealand etc.

Have Any Questions Regarding Global Virtual Reality in Gaming Market Report, Ask Our Experts@ <a href="https://www.advancemarketanalytics.com/enquiry-before-buy/31524-global-virtual-reality-in-gaming-market">https://www.advancemarketanalytics.com/enquiry-before-buy/31524-global-virtual-reality-in-gaming-market</a>

Strategic Points Covered in Table of Content of Global Virtual Reality in Gaming Market:

Chapter 1: Introduction, market driving force product Objective of Study and Research Scope the Virtual Reality in Gaming market

Chapter 2: Exclusive Summary - the basic information of the Virtual Reality in Gaming Market.

Chapter 3: Displaying the Market Dynamics- Drivers, Trends and Challenges & Opportunities of the Virtual Reality in Gaming

Chapter 4: Presenting the Virtual Reality in Gaming Market Factor Analysis, Porters Five Forces, Supply/Value Chain, PESTEL analysis, Market Entropy, Patent/Trademark Analysis.

Chapter 5: Displaying the by Type, End User and Region/Country 2015-2020

Chapter 6: Evaluating the leading manufacturers of the Virtual Reality in Gaming market which consists of its Competitive Landscape, Peer Group Analysis, BCG Matrix & Company Profile

Chapter 7: To evaluate the market by segments, by countries and by Manufacturers/Company with revenue share and sales by key countries in these various regions (2021-2026)

Chapter 8 & 9: Displaying the Appendix, Methodology and Data Source

Finally, Virtual Reality in Gaming Market is a valuable source of guidance for individuals and companies.

Read Detailed Index of full Research Study at @ <a href="https://www.advancemarketanalytics.com/buy-now?format=1&report=31524">https://www.advancemarketanalytics.com/buy-now?format=1&report=31524</a>

Document ICROWDN020210914eh9e000rz

### VR Gaming Market is Booming Worldwide | Facebook Technologies, Google, Lucid Sight

973 words 2 September 2021 iCrowdNewswire ICROWDN English

© Copyright iCrowdNewswire LLC 2021. All rights reserved

Latest released the research study on Global VR Gaming Market, offers a detailed overview of the factors influencing the global business scope. VR Gaming Market research report shows the latest market insights, current situation analysis with upcoming trends and breakdown of the products and services. The report provides key statistics on the market status, size, share, growth factors of the VR Gaming.

The study covers emerging player's data, including: competitive landscape, sales, revenue and global market share of top manufacturers are bHaptics, Inc. (South Korea),Facebook Technologies, LLC. (United States),Google LLC (United States),HTC Corporation (Taiwan),VR Electronics Limited (United Kingdom),Samsung Electronics Co., Ltd. (South Korea),Sony Interactive Entertainment LLC (Japan),AppliedVR, Inc. (United States),Phaser Lock Interactive (United States),Lucid Sight (United States).

Free Sample Report + All Related Graphs & Charts @: https://www.advancemarketanalytics.com/sample-report/26732-global-vr-gaming-market

#### Definition:

Recent advancements in motion sensors, graphics, multimodal display technologies, and interactivity have prepared the road for Virtual Reality (VR) games to go beyond traditional entertainment, allowing for seamless immersion in highly interactive synthetic worlds. VR develops beyond linked technology to take the user(s) into the heart of the tale itself, seeing it as though in first person, from active adventures to soothing, passive immersion. Serious games including education and training, for example, become a fascinating experience thanks to the magic of VR, which teaches players new abilities and improves their competence. VR gaming is presently being used by industries such as real estate, automobiles, advertising, and tourism to attract new audiences or engage clients in new engaging experiences. VR gaming also serves as a source of inspiration for media artists, filmmakers, singers, and designers.

Keep yourself up-to-date with latest market trends and changing dynamics due to COVID Impact and Economic Slowdown globally. Maintain a competitive edge by sizing up with available business opportunity in VR Gaming Market various segments and emerging territory.

Market Trend:

Emergence of Gaming as Competitive Esports

Market Drivers:

Increasing Recognition for VR Gaming

Challenges:

Costly Virtual Reality Headsets

User Friendly Interface

Opportunities:

Increasing Demand Across Emerging Regions

Enquire for customization in Report @:

https://www.advancemarketanalytics.com/enquiry-before-buy/26732-global-vr-gaming-market

The Global VR Gaming Market segments and Market Data Break Down are illuminated below:

by Connecting Device (Gaming Console, PC/ Desktop, Smartphone), Component (Hardware, Software), End User (Commercial Space, Individual)

Region Included are: North America, Europe, Asia Pacific, Oceania, South America, Middle East & Africa

Country Level Break-Up: United States, Canada, Mexico, Brazil, Argentina, Colombia, Chile, South Africa, Nigeria, Tunisia, Morocco, Germany, United Kingdom (UK), the Netherlands, Spain, Italy, Belgium, Austria, Turkey, Russia, France, Poland, Israel, United Arab Emirates, Qatar, Saudi Arabia, China, Japan, Taiwan, South Korea, Singapore, India, Australia and New Zealand etc.

What benefits does AMA research study is going to provide?

Latest industry influencing trends and development scenario Open up New Markets To Seize powerful market opportunities Key decision in planning and to further expand market share Identify Key Business Segments, Market proposition & Gap Analysis Assisting in allocating marketing investments

Strategic Points Covered in Table of Content of Global VR Gaming Market:

Chapter 1: Introduction, market driving force product Objective of Study and Research Scope the VR Gaming market

Chapter 2: Exclusive Summary - the basic information of the VR Gaming Market.

Chapter 3: Displaying the Market Dynamics- Drivers, Trends and Challenges of the VR Gaming

Chapter 4: Presenting the VR Gaming Market Factor Analysis Porters Five Forces, Supply/Value Chain, PESTEL analysis, Market Entropy, Patent/Trademark Analysis.

Chapter 5: Displaying market size by Type, End User and Region 2015-2020

Chapter 6: Evaluating the leading manufacturers of the VR Gaming market which consists of its Competitive Landscape, Peer Group Analysis, BCG Matrix & Company Profile

Chapter 7: To evaluate the market by segments, by countries and by manufacturers with revenue share and sales by key countries (2021-2026).

Chapter 8 & 9: Displaying the Appendix, Methodology and Data Source

Finally, VR Gaming Market is a valuable source of guidance for individuals and companies in decision framework.

Get More Information:

https://www.advancemarketanalytics.com/reports/26732-global-vr-gaming-market

Key questions answered

Who are the Leading key players and what are their Key Business plans in the Global VR Gaming market? What are the key concerns of the five forces analysis of the Global VR Gaming market? What are different prospects and threats faced by the dealers in the Global VR Gaming market? What are the strengths and weaknesses of the key vendors?

Definitively, this report will give you an unmistakable perspective on every single reality of the market without a need to allude to some other research report or an information source. Our report will give all of you the realities about the past, present, and eventual fate of the concerned Market.

Thanks for reading this article; you can also get individual chapter wise section or region wise report version like North America, Europe or Asia.

### About Author:

Advance Market Analytics is Global leaders of Market Research Industry provides the quantified B2B research to Fortune 500 companies on high growth emerging opportunities which will impact more than 80% of worldwide companies' revenues.

Our Analyst is tracking high growth study with detailed statistical and in-depth analysis of market trends & dynamics that provide a complete overview of the industry. We follow an extensive research methodology coupled with critical insights related industry factors and market forces to generate the best value for our clients. We Provides reliable primary and secondary data sources, our analysts and consultants derive informative and usable data suited for our clients business needs. The research study enable clients to meet varied market objectives a from global footprint expansion to supply chain optimization and from competitor profiling to M&As.

Document ICROWDN020210902eh9200132

Page 10 of 148 © 2022 Factiva, Inc. All rights reserved.

### FacebookGaming's Top Users Can Now Stream Music Worry-Free

Tatiana Cirisano 778 words 2 September 2021 Billboard BBRD English

Copyright 2021, Nielsen Business Media. All rights reserved.

Facebook Gaming is expanding the ability for some users to play popular music in the background of their gaming livestreams, as well as in clips and other on-demand videos, putting the platform a step ahead of competitor Twitch.

As of today (Sept. 2), more than 100,000 users across Facebook Gaming's Partner and Level Up programs can play songs from a wide catalog of popular music thanks to multi-year music licensing deals with Universal Music Group, Warner Music Group, Sony Music Entertainment and their respective publishing companies, along with Kobalt Music Group, BMG and Merlin. Users become eligible for Level Up status, which unlocks new monetization tools, when they reach milestones like having at least 100 followers; and can apply to become a Partner, which gives users additional support and early access to new features.

"We want to make sure that Facebook and Facebook Gaming are places where people entertain and build community in a deeper way, and the combination of gaming and music is essential," Facebook Gaming's director of global gaming creator partnerships Luis Renato Olivalves tells Billboard.

Facebook Gaming signed the music licensing deals one year ago this month, so it technically could have rolled out music access to its users earlier. But Olivalves says that the company wanted to improve their artificial intelligence-driven content recognition system first, ensuring that Facebook Gaming would be able to stick to its agreements. That's why the platform has spent the past year testing out the feature with a small, select group of partners.

"In theory, the agreements we have with the industry already cover this expansion, we're just now confident that we're able to stick to what we agreed upon," Olivalves says. "We learned a lot since we launched in September about how to handle [rights] in a more graceful, less disruptive way, while providing more transparency to the streamer."

To get an idea of the complexity of the issue, consider that Facebook Gaming's music licenses only cover music played in the background of livestreams. A user livestreaming a DJ set would be a no-go. Facebook Gaming's system must be able to detect not just what music is playing, then, but whether it is in the background or the main focus of the stream. Rights also vary by territory and partner.

Olivalves says that the new system also improves the platform's process of handling violations. In the past, streams using copyrighted content would be automatically blocked, giving the user little information on what they did wrong or how to prevent violations in the future. Now, if a user runs into a restricted track, Facebook Gaming will surface an in-product notification that identifies the artist and title.

"[Until now] we were never able to give you enough information or provide real-time awareness of what was happening to your livestream," Olivalves says, "so you can not only fix it in real-time, but learn how to not do that in future streams."

The announcement gives Facebook Gaming a leg up on Twitch, the gamer-focused livestreaming platform which so far lacks broad music licensing deals with record labels and publishers. Over the past year, the National Music Publishers' Association and RIAA have sent tens of thousands of takedown notices for infringing content on the platform, attempting to force Twitch to the negotiating table by frustrating its users. Meanwhile, Facebook Gaming has been growing: The platform counted 533 million hours watched in July, according to the latest report from livestreaming platform and industry tracker <a href="StreamElements">StreamElements</a>, an increase of 26% month-over-month and 53% year-over-year. Twitch saw 1.8 billion hours watched in July, representing a 23% year-over-year growth.

Facebook Gaming users who are not part of the Level Up or Partner programs are still limited to the platform's "Sound Collection" of royalty-free background music. A representative for the company declined to specify if and when Facebook Gaming will expand music access to all users, saying only that "The hope is to always continue growing our music offerings for our community of creators."

Facebook Gaming is celebrating the news with the launch of its "#PlayLoud" series, which pairs popular gamers with DJs like Diplo and DJ Khaled, who will spin the background music for their gaming livestreams.

Page 11 of 148 © 2022 Factiva, Inc. All rights reserved.

"We're showing how those two community drivers," meaning music and gaming, "can make a deeper relationship between creators and gamer fans in real-time," Olivalves says. "Hopefully, this will prove that power."

Read more about the announcement in Olivalves' blog post here.

Document BBRD000020210903eh920003I

### FacebookGaming Expands Licensed Music Access to Level Up Creators

Brandy Shaul 222 words 2 September 2021 Adweek ADWE English Copyright 2021. Adweek

In September 2020, Facebook Gaming gave Facebook Gaming Partner creators the ability to <u>use licensed music</u> as background music during their livestreams.

Now, the social network expanded this capability to Level Up creators on the platform.

In a Facebook Gaming blog post, Luis Renato Olivalves, director of global gaming creator partnerships said Facebook partnered with "hundreds" of music companies including <u>Universal Music Group</u>, <u>Warner Music Group</u>, <u>Sony Music Entertainment</u>, <u>Kobalt Music Group</u>, <u>BMG</u>, and <u>Merlin</u> to allow creators to play licensed tracks while streaming video games.

Olivalves wrote, "A few restricted tracks aren't licensed for use on Facebook Gaming, but they're rare, and we're always working to expand the amount of music that's available to use."

To celebrate this expansion, Facebook Gaming is hosting #PlayLoud, a series of livestream events that will pair Facebook Gaming creators with DJs. The #PlayLoud event series will run through September 28, 2021.

<body><figure class="wp-block-image size-large"> <picture class="wp-image-1343304"> <source srcset="

https://www.adweek.com/wp-content/uploads/2021/09/Facebook-Gaming-PlayLoud-819x1024.png.webp" type="image/webp"> <source

srcset="https://www.adweek.com/wp-content/uploads/2021/09/Facebook-Gaming-PlayLoud-819x1024.png" type="image/png"> </picture><figcaption>Facebook Gaming</figcaption></figure></pod>

Document ADWE000020210903eh9200009



### Facebook Inc. - Celebrating Music on FacebookGaming with Live DJs

Facebook Inc. published this content on 02 Sep 2021 and is solely responsible for the information contained herein. Distributed by PUBT, unedited and unaltered, on 02 Sep 2021 17:05:09 UTC. 323 words

2 September 2021

Public Companies News and Documents via PUBT

LCDVP

English

Copyright 2021. As included in the Information

\* Click here to view this document in its original format

Celebrating Music on Facebook Gaming with Live DJs

Today, we're <u>expanding accessto music</u> on Facebook Gaming. Now, all Partner and Level Up Creators can play <u>background music during their livestreams on Facebook Gaming</u> - including clips made from a livestream and the video on demand (VOD) versions of livestreams. And to celebrate, we're kicking off #PlayLoud, a series of live events that pair renowned DJs with Facebook Gaming Creators.

### [Link]

Hosted by Rachel De Mita, #PlayLoud celebrates the convergence of music and gaming. We've got a stellar roster of talent lined up, including DJ Khaled, Diplo, LP Giobbi, and Angel + Dren. On the gaming front, you can expect to see fan favorites <a href="MissesMae">MissesMae</a>, <a href="QueenEliminator">QueenEliminator</a>, <a href="StoneMountain64">StoneMountain64</a>, and <a href="King Bach">King Bach</a>.

'My favorite thing about making and playing music is that it brings people together,' says Diplo. 'Gaming creates community in a really similar way; it's a crazy thing to watch. #PlayLoud lets us perform in celebration of those communities, and I'm honored to be a part of it.'

The #PlayLoud series will feature three upcoming episodes, livestreamed on Facebook Gaming at fb.gg/FacebookGaming . The schedule includes:

- \* August 30: MissesMae and Angel + Dren (Available as VOD here )
- \* September 10, starting at 1:00 PM PDT: Stone Mountain 64 and DJ Khaled
- \* September 22, starting at 11:00 PM PDT: King Bach and Diplo
- \* September 28, starting at 1:00 PM PDT: Queen Eliminator and LP Giobbi

### Disclaimer

Facebook Inc. published this content on 02 September 2021 and is solely responsible for the information contained therein. Distributed by <u>Public</u>, unedited and unaltered, on 02 September 2021 17:09:21 UTC.

Document LCDVP00020210902eh9200kwu



### International

### Facebook adds fantasy sports gaming for iOS, Android users

371 words 2 September 2021 Indo-Asian News Service HNIANS English

Copyright 2021. Indo-Asian News Service

San Francisco, Sep 2 (IANS) In a bid to offer fantasy gaming, Facebook has announced that it is rolling out Facebook Fantasy Games in the US and Canada on its app for iOS and Android users.

The company said that they are free, simple prediction games that help fans enjoy sports, TV shows and pop culture content together.

"Today, we're rolling out Facebook Fantasy Games in the US and Canada on the Facebook app for iOS and Android. Facebook Fantasy Games are free, simple prediction games that help fans enjoy sports, TV shows and pop culture content together," Daniel Fletcher, Product Manager, Entertainment, said in a blogpost on Wednesday.

"These games bring the social fun of traditional fantasy sports to simpler formats that are easy to play for people new to prediction games, while still engaging enough for more seasoned players," Fletcher added.

In addition to public leaderboards, players can create their own fantasy league and compete against friends and other fans. Leagues, which can be public or private, will allow members to compare scores to others in the league and provide a place for members to share picks, reactions and comments.

"Available today, daily sports prediction game Pick and Play Sports is the first game we are launching, in partnership with Whistle Sports," Fletcher said.

Fans will get points for correctly predicting the winner of a big game, the points scored by a top player or specific events that unfold during a match. Players can earn bonus points for building a streak of correct predictions over a series of days.

In the upcoming months, Facebook will introduce new games with TV shows like CBS's Survivor and ABC's The Bachelorette, sports leagues like Major League Baseball and LaLiga Santander and premier digital publishers like BuzzFeed.

Each week, fans will select a set of Castaways to be on their Fantasy Survivor team and answer a series of questions about the upcoming episode. Fans will then receive points based on the events that unfold in that week's episode.

People on iOS and Android can discover Fantasy Games from the bookmark menu and in News Feed through notifications.

--IANS

vc/bg

Document HNIANS0020210902eh92004v2

### Immersive Virtual Reality Market Next Big Thing | Facebook, Google, HTC, Microsoft, HTC,

1,127 words 31 August 2021 iCrowdNewswire **ICROWDN Enalish** 

© Copyright iCrowdNewswire LLC 2021. All rights reserved

The 'Immersive Virtual Reality market' research report added by Report Ocean, is an in-depth analysis of the latest developments, market size, status, upcoming technologies, industry drivers, challenges, regulatory policies, with key company profiles and strategies of players. The research study provides market overview; Immersive Virtual Reality derived key statistics, based on the market status of the manufacturers and is a valuable source of guidance and direction for companies and individuals interested in Immersive Virtual Reality market size forecast, Get report to understand the structure of the complete fine points (Including Full TOC, List of Tables & Figures, Chart).

A combination of factors, including COVID-19 containment situation, end-use market recovery & Recovery

Timeline of 2020/2021 covid-19 scenario Market Behavior **End Industry Behavior Expected Industry Recovery Timeline Expected Key Dynamic Business Impact Horizon** Fast recovery – Opening of economy by Q2 2020 ХX ХX XX XX XX Gradual recovery - Opening of economy by Q3 2020 ХX хx XX ХX XX Partial recovery - Partial opening of economy by Q3 2020 ХX XX XX XX

XX

xx
xx
xx
xx
xx
Download Free Sample Copy of 'Immersive Virtual Reality market' Report @
https://reportocean.com/industry-verticals/sample-request?report_id=bis210779
A systematic step framework for How to Tackle The Situation "MITIGATE"   "SUSTAIN"   "GROW": Business Strategy Recovery, Scenario and Planning
Key Segments Studied in the Global Immersive Virtual Reality Market
Manufacturer Detail
Facebook
Google
нтс
Microsoft
Magic Leap
Samsung
WorldViz
Marxent Labs
Unity Technologies
Snap
CastAR
Section 4: 900 USD——Region Segmentation
North America (United States, Canada, Mexico)
South America (Brazil, Argentina, Other)
Asia Pacific (China, Japan, India, Korea, Southeast Asia)
Europe (Germany, UK, France, Spain, Italy)
Middle East and Africa (Middle East, Africa)
Section (5 6 7): 700 USD
Product Type Segmentation
Non-Immersion
Half-Immersion
Whole-Immersion
Application Segmentation
Entertainment
Engineering

Education

Page 17 of 148 © 2022 Factiva, Inc. All rights reserved.

### Commercial

Browse market information, tables and figures extent in-depth TOC, The latest independent research document on various market development activities and business strategies such as new product/services development, Joint Ventures, partnerships, mergers and acquisitions, etc. In order to provide a more informed view, a market company profiles include Business Overview, Product / Service Offerings, SWOT Analysis, Segment & Total Revenue, Gross Margin and % Market Share.

What our reports offer:

Market share assessments for the regional and country-level segments Strategic recommendations for the new entrants Covers market data for 2020, 2021, till 2025 Market trends (drivers, opportunities, threats, challenges, investment opportunities, and recommendations) Strategic recommendations in key business segments based on the market estimations Competitive landscaping mapping the key common trends Company profiling with detailed strategies, financials, and recent developments Supply chain trends mapping the latest technological advancements

Geographical Breakdown: Regional level analysis of the market, currently covering North America, Europe, China & Japan

In-Depth Qualitative Analyses Include Identification And Investigation Of The Following Aspects: Market Structure, Growth Drivers, Restraints and Challenges, Emerging Product Trends & Market Opportunities, Porter's Fiver Forces. The report also inspects the financial standing of the leading companies, which includes gross profit, revenue generation, sales volume, sales revenue, manufacturing cost, individual growth rate, and other financial ratios. The report basically gives information about the Market trends, growth factors, limitations, opportunities, challenges, future forecasts, and details about all the key market players.

(Check Our Exclusive Offer: Ask for Discount to our Representative)

https://reportocean.com/industry-verticals/sample-request?report\_id=bis210779

Key questions answered: Study Explore COVID 19 Outbreak Impact Analysis

Market size and growth rate during forecast period. Key factors driving the Market. Key market trends cracking up the growth of the Market. Challenges to market growth. Key vendors of Market. Detailed SWOT analysis. Opportunities and threats faces by the existing vendors in Global Market. Trending factors influencing the market in the geographical regions. Strategic initiatives focusing the leading vendors. PEST analysis of the market in the five major regions.

Ask Our Expert for Complete Report@:

https://reportocean.com/industry-verticals/sample-request?report\_id=bis210779

Market analysis requires careful attention to the following:

Market Analysis: To make this section robust, we help you identify industry size, growth rates, drivers, challenges, major players, and market forecasts and emerging trends. Competitive Analysis: Understanding your competition is critical to your success. This section includes an analysis of your key competitors, their products/services, their differentiators, and market shares. Target Market and Customers: Identifying and prioritizing specific target markets are another key part of your industry analysis where research is crucial. You need to think about demographics and buying behaviors of your customers? How can you best reach them? What kinds of challenges do they have? How do they like to be marketed?

Competitiveness Industry concentration – This is a measure of the number of firms in an industry and the size of the predominant firms in the industry. It indicates the nature of the competition. Identify the most important players in the industry. What percent of the market is controlled by the largest companies (for example, the four largest firms)? What is the market share of each major firm? What is the number of firms over a certain size? Is there a dominant industry leader? Who is it?

Key Points Covered in Immersive Virtual Reality Market Report: Study Explore COVID 19 Outbreak Impact Analysis

Global Immersive Virtual Reality Market Research Report

Section 1: Global Immersive Virtual Reality Industry Overview

Section 2: Global Economic Impact on Immersive Virtual Reality Industry

Section 3: Global Market Competition by Industry Producers

Page 18 of 148 © 2022 Factiva, Inc. All rights reserved.

- Section 4: Global Productions, Revenue (Value), according to Regions
- Section 5: Global Supplies (Production), Consumption, Export, Import, geographically
- Section 6: Global Productions, Revenue (Value), Price Trend, Product Type
- Section 7: Global Market Analysis, on the basis of Application
- Section 8: Immersive Virtual Reality Market Pricing Analysis
- Section 9: Market Chain, Sourcing Strategy, and Downstream Buyers
- Section 10: Strategies and key policies by Distributors/Suppliers/Traders
- Section 11: Key Marketing Strategy Analysis, by Market Vendors
- Section 12: Market Effect Factors Analysis
- Section 13: Global Immersive Virtual Reality Market Forecast

Continued....

......and view more in complete table of Contents

Browse Premium Research Report with Tables and Figures at @ <a href="https://reportocean.com/industry-verticals/sample-request?report\_id=bis210779">https://reportocean.com/industry-verticals/sample-request?report\_id=bis210779</a>

Thanks for reading this article; you can also get individual chapter wise section or region wise report version like North America. Europe or Asia.

### About Report Ocean:

We are the best market research reports provider in the industry. Report Ocean believe in providing the quality reports to clients to meet the top line and bottom line goals which will boost your market share in today's competitive environment. Report Ocean is "one-stop solution" for individuals, organizations, and industries that are looking for innovative market research reports.

Document ICROWDN020210831eh8v000pv

# The Sunday Telegraph

**Business** 

Facebook's brave new world of virtual reality meetings is far from sci-fi

James Titcomb 1,631 words 29 August 2021 The Sunday Telegraph STEL 1; National

6

**English** 

The Sunday Telegraph © 2021. Telegraph Media Group Ltd.

Technologists warn the social media giant's Horizons Workrooms is a step towards a much bigger idea, writes James Titcomb

For the first time in more than a year, I am sitting at a boardroom table. My interview subject, a Facebook executive called Mike LeBeau, gesticulates as he explains the social media giant's latest invention, drawing on a whiteboard to illustrate his point. The company's public relations representative sits to LeBeau's left, silently taking notes on a computer. I am wearing a pristine blue suit, and feel decidedly overdressed in the presence of hoodies and jeans. We are at least all maskless, despite Facebook's policy requiring face coverings in the office.

In reality, the three of us are sitting in different homes, with a virtual reality helmet strapped to our heads. LeBeau is demonstrating Horizons Workrooms, Facebook's online space for virtual reality meetings that has been developed by a group at the company's London offices. Even if we are represented by cartoon avatars that hover around the room, the meeting certainly feels closer to real life than staring into a Zoom video call.

LeBeau knows this more than most. Horizon Workrooms was built partly out of frustration at dialling into video meetings with colleagues in California, a problem even before the pandemic. He says up to half of his meetings now take place in VR. "We were thinking, 'We're eight hours away from California, how do we still have the same kind of impact from this distance?" For Facebook, which expects around half of its staff to work from home in the next decade, these meetings might become the norm. It is also one of the first efforts the company has made to move virtual reality beyond the world of video games, having ploughed billions of dollars a year into the technology seven years after purchasing VR company Oculus.

But some technologists say it is also a step towards a bigger idea; the concept not just of virtual meeting rooms but of virtual worlds: living, always-on parallel universes with their own economies, properties, laws and people who break them. The virtual world has been a science fiction trope for decades, the concept behind films such as The Matrix and Ready Player One. More recently, another name for it has captured the tech industry's attention.

The "metaverse" - a term coined by the author Neal Stephenson for the simulation in his 1992 novel Snow Crash - has become Silicon Valley's argot of the year (Stephenson, somewhat bemused at his new status as a Nostradamus, has since told an interviewer he was "just making s---up"). Google searches for "metaverse" have risen ninefold since the start of the year, and executives are falling over themselves to own the term.

"In the coming years, I expect people will transition from seeing us primarily as a social media company to seeing us as a metaverse company," Mark Zuckerberg, Facebook's chief executive, recently told investors, using the word 21 times over the course of an hour. Roblox, the company behind the wildly popular children's video game of the same name, was valued at \$38bn (£27bn) earlier this year on a promise to deliver the metaverse.

Epic Games, the video game giant behind Fortnite, in April raised \$1bn from investors including Sony to fund a "long-term vision for the metaverse". Its chief executive Tim Sweeney spent much of his time on the stand in the company's recent lawsuit against Apple laying out what that meant, describing it as a "virtual world for socialising and entertainment".

Every executive has a different definition of the metaverse - imagine describing the internet to the uninitiated four decades ago - but they can agree there is money to be made.

Broadly, it involves moving much of everyday life and work into an online and 3D space, unbound by the realworld inconveniences of distance and physics. Board meetings, rock concerts and sports tournaments would take place there. Virtual reality is a potential gateway, but not a necessary one.

Page 20 of 148 © 2022 Factiva, Inc. All rights reserved.

Today, the most vibrant metaverses are accessed through smartphones and consoles: video games such as Fortnite, where this month millions tuned in to a virtual concert featuring the pop star Ariana Grande, and Minecraft, where players congregate in a Lego-like open world. Already, these virtual worlds turn over huge sums. While Fortnite is free to play, users spent \$3.7bn on virtual items such as special characters and clothing in 2019. Roblox took in \$924m last year from gamers spending money to access extra features.

If people are indeed willing to spend hours in virtual worlds, it might follow that they might value digital items as much as physical ones. This year saw a frenzied rush for non-fungible tokens, or NFTs, digital collectibles such as pieces of art or unique footwear designs. Unlike most digital material, NFTs cannot be infinitely copied and pasted, granting an air of exclusivity that gives them purported value.

The latest rush is for virtual land - digital plots that eager citizens of the metaverse plan to make their home. June saw the priciest auction to date for a slice of virtual real estate, when an investment fund focused on the area paid more than \$900,000 for a patch of Decentraland, a virtual world based on the blockchain technology that underpins Bitcoin.

Edward Saatchi, a technology entrepreneur in San Francisco, says he recently paid several times the value of his car for his own piece of digital paradise. "Rather than getting my Mini replaced, which I use every day and is falling apart, I decided to spend multiples of that amount on digital land. But I'm more and more in that realm." Saatchi says the investment has paid off: the digital property is now worth several times what he paid for it.

If the concept of moving life to a digital simulation sounds ludicrous, it might have sounded more so 18 months ago, before Covid subjected the world to days and evenings of Zoom calls, virtual quizzes and online gaming. "What happened in the last year would have taken a decade otherwise," says Jamie Burke, the founder of Outlier Ventures, a London venture capital firm dedicated to technologies that will power the metaverse. "People spent more time in games and they started to think about how they express themselves digitally. A lot of this had previously been a weird subculture. Now, depending on the generation, it's pretty mainstream."

Not everybody is convinced. The metaverse, with its science fiction connotations, smacks of the sort of grand idea that captivates much of Silicon Valley, while the execution is harder. Virtual reality has gone through several false dawns, enough to wonder if it is not so much the technology as the idea of strapping a computer to one's head that is wrong. Second Life, the online virtual world founded in 2003, was hailed as the future of socialising until the hype died down.

Saatchi says the success of games such as Fortnite and Roblox, and the millions spent on NFTs demonstrates that the metaverse is already here. "I don't think anything material has improved. Everyone's just like, 'Oh my God, there's a lot of money here.'."

That is perhaps what has attracted the likes of Facebook to the space. Burke, whose venture capital fund is dedicated to "decentralised" technology that purports to provide an alternative to control of key technologies by a few companies, says the question is less about whether the metaverse will happen than who will control it. Owning much of today's internet is one thing, but controlling a metaverse where people might work, live and run businesses is another.

"If you look at the web as it is today, it's either a monopoly or a duopoly. The idea that we would allow these monopolies as they are today to just extend those business models is clearly not acceptable. That is incredibly dystopian." In Stephenson's Snow Crash, the novel that coined the word, the metaverse is operated by an megalomaniac telecoms monopolist called L Bob Rife, seeking to use his creation to control the minds of a compliant population. Plenty of

Zuckerberg's critics might be all too willing to make a comparison.

On the edge of the 'meterverse' Who will lead future transition?

Facebook chief executive Mark Zuckerberg has admitted to devoting much of his time running the trillion-dollar company on its work in virtual reality and declared that over the next five years it will "transition? to being a metaverse company".

With more than 3.5 billion people using one of the company's apps and having invested huge sums in developing virtual reality headsets, Facebook might appear the most likely company to dominate the impending era of virtual worlds, but it faces stout competition from rivals.

Epic Games, the company behind Fortnite, led by billionaire founder Tim Sweeney, has a head start. While best known as a video game, Fortnite is often used by its players as an online meeting spot and has hosted virtual concerts featuring A-list musicians. But unlike Facebook, it has convinced users to spend heavily on digital goods.

Page 21 of 148 © 2022 Factiva, Inc. All rights reserved.

Roblox, the popular children's game company led by David Baszucki, has similar traits, but unlike Fortnite has its own thriving free market economy, allowing players to make and sell their own in-game challenges and items.

'In the coming years, I expect people will transition from seeing us as a social media company to a metaverse one' 'A lot of this had previously been a weird subculture. Now, depending on the generation, it's pretty mainstream'

Document STEL000020210829eh8t0000w



## CE Noticias Financieras English FacebookGaming now allows for live streaming

725 words
26 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook continues to excel in its efforts to make inroads into the gaming industry. Its platform, Facebook Gaming, has grown in importance in recent months and now takes a step further to stand up to Twitch. Mark Zuckerberg's company finally announced the opening of free streaming so that any user can make gameplays and all kinds of content.

If you were thinking about following in the footsteps of your favorite gamers, maybe it's time to consider Facebook Gaming, since its proposal promises new things different from its competitors. Here we will explain the aspects you should consider before venturing into streaming.

What is Facebook Gaming? Just like Twitch, the specialty of this new Facebook platform is the digital support for live broadcasts. If you already have a Facebook account, preferably one that's exclusive to your brand of streamer, you're halfway there!

However, it's not just for you to create content, you can also enjoy streams from other creators who are playing a variety of video games sponsored directly by the Facebook Gaming catalog.

How to become a streamer on Facebook Gaming? To become the people you look up to when you see them playing online, there are a few things to consider. Facebook Gaming is a fairly new platform; in fact, it hasn't been around for more than a year since it was launched. This means that, in terms of competition, there is a very small number of streamers and there is still room for the number to grow. If your content is original, entertaining and consistent, it won't take you long to gather a digital community.

Another feature that Facebook offers is its Level Up program for gamers who want to monetize their streams. How to be part of it? Definitely, the requirements of this program are lower than the competition. The main requirements are:

Be of legal age; that is, 18 years and older. Have a Gameplay Video Creator page. Have streamed gameplays for a minimum of four hours in the last two weeks. Have a minimum of two total days of gameplay streaming in the last two weeks. Have at least 100 followers on your page. Have a minimum of 14 days of activity on your page. If you meet all of these requirements, you'll be eligible for Facebook Gaming program benefits, such as unlocking the Facebook Stars feature for fans to support you, fan subscriptions, live ads, access to beta products and features, and more.

What games can I play on Facebook Gaming? Facebook Gaming has an exciting catalog of free games that continues to expand. However, some of the games are low-quality mobile applications. The audience for these games, however, reaches up to 10 million players. Check the list below in case any of them interest you.

Magic Swap PuzzleJumpy JumpyBubble Shooter ProEgg Shoot Dynomite Bubble ShootLudo ClubWater SlideFree Piano Games 2020Angry Balls 3DWord BlitzPop Stone 2Facebook Parejas: how to share stories on your dating service profile?Available in Peru since 2019, Facebook Parejas is an online dating service developed by the social media giant to compete with apps like Tinder, Happn and Badoo. Recently, the platform was updated to improve the user experience.

If you use this portal, you have the possibility to share your Instagram and Facebook stories directly on your profile, which can help you to make yourself better known to your potential matches. Want to know how to do it? We'll tell you all the details below.

Facebook: What happens when you shake your smartphone with the app open? Open the Facebook application and shake your phone a few times. A small window will open, explaining how this function works. Similarly, it allows us to write the problem and take a screenshot of the failure.

In addition to reporting possible bugs, this secret feature gives users the ability to report bad practices that are being committed on pages or groups. If you see something inappropriate, you can report it this way.

It is worth noting that this feature is only available on smartphones, but not on tablets or iPads. It should also be noted that it was only enabled on Facebook, not on Facebook Lite, Instagram or WhatsApp, the other apps from Mark Zuckerberg's company.

Document NFINCE0020210826eh8q006ee



## Technology Facebook launches virtual reality-powered workspace features

Sowmya Ramasubramanian 330 words 25 August 2021 The Hindu Online THINDO English © 2021 THG Publishing Pvt. Ltd.

Technology

The tech giant has also extended support for hand tracking, which will allow users to control the keyboard and other features using their hands.

Facebook has introduced Horizon Workrooms, an app that will enable users to collaborate with colleagues using virtual reality (VR) with the Oculus Quest 2 headset.

(Subscribe to our Today's Cache newsletter for a quick snapshot of top 5 tech stories. Click <u>here</u> to subscribe for free.)

The "mixed reality experience" that will allow users to connect their physical desk and compatible keyboard with the virtual room. Users will also be able to access and share files from their computer in the virtual room. They can write on a virtual whiteboard, export contents and share them as images on a computer.

"Workrooms works across both virtual reality and the web and is designed to improve your teams ability to collaborate, come or communicate, and connect remotely, through the power of VR," the company said in a statement.

To personalise the experience, Facebook has enabled users to create custom looks or avatars, helping them feel like they're really with their colleagues. Additionally, low latency spatial audio support with will make conversations sound real and flow smoothly, according to the company.

Also Read | Facebook aims to prove VR's popularity more than virtual

The tech giant has also extended support for hand tracking, which will allow users to control the keyboard and other features using their hands. The app will support up to 50 people on a video call, and up to 16 people in the virtual room, Facebook noted.

Facebook clarified it does not use work conversations and materials to show ads on the platform, and said that no third-party apps can access or view the material either.

Workrooms Horizon is Facebook's step ahead to create the metaverse, a world beyond mixed reality that is capable of powering the next generation of the Internet.

Document THINDO0020210825eh8p000b6



Augmented Reality (AR) And Virtual Reality (VR) Market to grow by USD 162.71 billion, Alphabet Inc.& Facebook Inc. emerges as Key Contributors to growth Technavio

1,311 words 24 August 2021 16:30 PR Newswire PRN English

Copyright © 2021 PR Newswire Association LLC. All Rights Reserved.

NEW YORK, Aug. 24, 2021 /PRNewswire/ -- According to the latest market research report titled augmented reality (AR) and virtual reality (VR) market by Technology (AR and VR) and Geography (North America, APAC, Europe, MEA, and South America) from Technavio, the market is expected to expand at a healthy CAGR of 46%.

Technavio's custom research offerings with crucial business data insights including country-level impact, upcoming vaccines, and pipeline analysis

Impact of COVID-19

The industry is expected to have a mixed impact due to the spread of the COVID-19 virus. The market will have a direct impact due to the spread. In the short term, the market demand will show at par growth due to the increase in infections and reduced economic activity.

Download a free sample report in minutes

### Frequently Asked Questions:

- -- Based on segmentation by Technology, which is the leading segment in the market? The augmented reality and virtual reality market share growth by the AR segment will be significant during the forecast period.
- -- At what rate is the market projected to grow? The augmented reality (AR) and virtual reality (VR) market has the potential to grow by USD 162.71 billion during 2021-2025.
- -- Who are the top players in the market? Alphabet Inc., Facebook Inc., HP
  - Inc., HTC Corp., Magic Leap Inc., Microsoft Corp., Samsung Electronics Co. Ltd., Snap Inc., Sony Corp., and Toshiba Corp. are some of the major market participants.
  - -- What are the key market drivers and challenges? The increasing demand for AR and VR technology is notably driving the augmented reality and virtual reality market growth, although factors such as high development costs associated with AR and VR apps may impede the market growth.
  - -- How big is the APAC market?34% of the market's growth will originate from APAC during the forecast period.

Related Reports on Information Technology Include:

eDiscovery Software Market Report -The eDiscovery software market has the potential to grow by USD 2.70 billion during 2021-2025, and the market's growth momentum will accelerate at a CAGR of 12.71%. Download a free sample report now!

Field Service Management Software Market Report -The field service management (FSM) software market has the potential to grow by USD 3.68 billion during 2021-2025, and the market's growth momentum will decelerate at a CAGR of 18.22%. Download a free sample report now!

Buy 1 Technavio report and get the second for 50% off. Buy 2 Technavio reports and get the third for free.

View market snapshot before purchasing

The market is fragmented, and the degree of fragmentation will accelerate during the forecast period. Although the increasing demand for product launches, and M&A activities will offer immense growth opportunities, risks associated with AR and VR applications and limitations of AR and VR technology are likely to pose a challenge for the market vendors. In a bid to help players strengthen their market foothold, this augmented reality (AR) and virtual reality (VR) market forecast report provides a detailed analysis of the leading market vendors. The report also empowers industry honchos with information on the competitive landscape and insights into the different product offerings offered by various companies.

Technavio's custom research reports offer detailed insights on the impact of COVID-19 at an industry level, a regional level, and subsequent supply chain operations. This customized report will also help clients keep up with new product launches in direct & indirect COVID-19 related markets, upcoming vaccines and pipeline analysis, and significant developments in vendor operations and government regulations.

Augmented Reality (AR) and Virtual Reality (VR) Market 2021-2025: Segmentation

Augmented Reality (AR) and Virtual Reality (VR) Market is segmented as below:

```
-- Technology
-- AR
-- VR
-- Geography
-- North America
-- APAC
-- Europe
-- MEA
-- South America
```

Augmented Reality (AR) and Virtual Reality (VR) Market 2021-2025: Scope

Technavio presents a detailed picture of the market by the way of study, synthesis, and summation of data from multiple sources. The augmented reality (AR) and virtual reality (VR) market report cover the following areas:

```
-- Augmented Reality (AR) and Virtual Reality (VR) Market Size
-- Augmented Reality (AR) and Virtual Reality (VR) Market Trends
-- Augmented Reality (AR) and Virtual Reality (VR) Market Industry Analysis
This study identifies the Increasing number of M&A activities as one of the prime reasons driving the Augmented Reality (AR) and Virtual Reality (VR) Market growth during the next few years.
```

Technavio suggests three forecast scenarios (optimistic, probable, and pessimistic) considering the impact of COVID-19. Technavio's in-depth research has direct and indirect COVID-19 impacted market research reports.

Gain instant access to 17,000+ market research reports by using Technavios Subscription Platform

Technavio's SUBSCRIPTION platform

Augmented Reality (AR) and Virtual Reality (VR) Market 2021-2025: Key Highlights

```
    CAGR of the market during the forecast period 2021-2025
    Detailed information on factors that will assist augmented reality (ar) and virtual reality (VR) market growth during the next five years
```

- -- Estimation of the augmented reality (ar) and virtual reality (VR) market size and its contribution to the parent market
- -- Predictions on upcoming trends and changes in consumer behavior
- -- The growth of the augmented reality (ar) and virtual reality (VR) market across North America, APAC, Europe, MEA, and South America
- -- Analysis of the market's competitive landscape and detailed information on vendors
- -- Comprehensive details of factors that will challenge the growth of augmented reality (ar) and virtual reality (VR) market, vendors

### Table of Contents:

### **Executive Summary**

### Market Landscape

- -- Market ecosystem
- -- Value chain analysis

### Market Sizing

- -- Market definition
- -- Market segment analysis
- -- Market size 2020
- -- Market outlook: Forecast for 2020 2025

### Five Forces Analysis

- -- Five forces summary
- -- Bargaining power of buyers
- -- Bargaining power of suppliers
- -- Threat of new entrants
- -- Threat of substitutes
- -- Threat of rivalry
- -- Market condition

### Market Segmentation by Technology

- -- Market segments
- -- Comparison by Technology
- -- AR Market size and forecast 2020-2025
- -- VR Market size and forecast 2020-2025
- -- Market opportunity by Technology

### Customer landscape

-- Overview

### Geographic Landscape

Page 28 of 148 © 2022 Factiva, Inc. All rights reserved.

- -- Geographic segmentation -- Geographic comparison -- North America - Market size and forecast 2020-2025
- -- APAC Market size and forecast 2020-2025
- -- Europe Market size and forecast 2020-2025
- -- MEA Market size and forecast 2020-2025
- -- South America Market size and forecast 2020-2025
- -- Key leading countries
- -- Market opportunity by geography
- -- Market drivers
- -- Market challenges
- -- Market trends

### Vendor Landscape

- -- Overview
- -- Landscape disruption

### Vendor Analysis

- -- Vendors covered
- -- Market positioning of vendors

### Alphabet Inc.

- -- Facebook Inc.
- -- HP Inc.
- -- HTC Corp.
- -- Magic Leap Inc.
- -- Microsoft Corp.
- -- Samsung Electronics Co. Ltd.
- -- Snap Inc.
- -- Sony Corp.
- -- Toshiba Corp.

### Appendix

- -- Scope of the report
- -- Currency conversion rates for US\$
- -- Research methodology

Page 29 of 148 © 2022 Factiva, Inc. All rights reserved.

-- List of abbreviations

### About Us

Technavio is a leading global technology research and advisory company. Their research and analysis focuses on emerging market trends and provides actionable insights to help businesses identify market opportunities and develop effective strategies to optimize their market positions. With over 500 specialized analysts, Technavio's report library consists of more than 17,000 reports and counting, covering 800 technologies, spanning across 50 countries. Their client base consists of enterprises of all sizes, including more than 100 Fortune 500 companies. This growing client base relies on Technavio's comprehensive coverage, extensive research, and actionable market insights to identify opportunities in existing and potential markets and assess their competitive positions within changing market scenarios.

Contact

Technavio Research

Jesse Maida

Media & Marketing Executive

US: +1 844 364 1100

UK: +44 203 893 3200

Email: media@technavio.com

Website: www.technavio.com/

View original content to download

multimedia:

https://www.prnewswire.com/news-releases/augmented-reality-ar-and-virtual-reality-vr-market-to-grow-by-usd-162-71-billion-alphabet-inc-facebook-inc-emerges-as-key-contributors-to-growth-technavio-301360732.html

SOURCE Technavio

/Web site: http://www.technavio.com

(END)

Document PRN0000020210824eh8o00051

### FacebookGaming Reopens Applications for Black Gaming Creator Program

David Cohen
411 words
23 August 2021
Adweek
ADWE
English
Copyright 2021. Adweek

<u>Facebook Gaming reopened applications</u> Monday for its <u>Black Gaming Creator Program</u>, which was introduced last December to support the Black gaming community with \$10 million in funding over two years, along with other benefits.

The Black Gaming Creator Program is part of the \$200 million commitment the company made to Black-owned businesses and nonprofits last June, as well as a \$25 million commitment made last August to support Black creators via the company's We the Culture program.

In addition to funding in the form of guaranteed monthly pay, benefits provided via the Black Gaming Creator Program include:

- \* Participants are officially welcomed as <u>Facebook Gaming Partners</u>, with badges added to their pages on Facebook Gaming.
- \* They receive early access to new streaming features and tools designed to help gaming creators grow their communities, and they will take part in regular feedback sessions with Facebook Gaming's product teams to help craft the platform's future.
- \* They will also have access to a private Facebookgroup with members of the Facebook Gaming team, as well as exclusive gaming concierge support and invites to all virtual and, eventually, in-person gaming events.
- \* There will be bi-monthly summits focused on mentorship and training and featuring established Black gaming creators providing answers, encouragement and guidance.
- \* Participants will be able to apply to onboard monetization features including <u>Fan Subscriptions</u>, <u>Live Ads</u> and <u>Stars</u>, as long as they meet the platform's integrity-based requirements for those products.

Facebook global director of gaming creator partnerships Luis Renato Olivalves said in a statement, "We're excited to reopen applications for the Black Gaming Creator Program's second year and are eager to see the next wave of great gaming creators at Facebook Gaming. With many new partners in the first year, this program is proof of the growing excitement for entertaining, diverse and creative personalities and new communities within game streaming."

First-year participant The Fierce Diva added, "For the majority of my life, I struggled to find what I wanted to do. However, the central concept to my professional endeavors was assisting or advocating for communities in need. Through streaming, I found that I could do this at a broader scale and build a community for people to become better versions of themselves. Streaming on Facebook has given me an opportunity to engage with people and give back to a community in the gaming space."

Document ADWE000020210824eh8n00005

### International New York Eimes

technology

Facebook's New Bet on Virtual Reality: Conference Rooms

By Mike Isaac 1,374 words 21 August 2021 International New York Times INHT English © 2021 The New York Times Company. All Rights Reserved.

The pandemic has renewed interest in virtual reality. Facebook is trying to capitalize with a new virtual meeting room service.

SAN FRANCISCO — For years, the idea that virtual reality would go mainstream has remained exactly that:

Though tech giants like Facebook and Sony have spent billions of dollars trying to perfect the experience, virtual reality has stayed a niche plaything of hobbyists willing to pay thousands of dollars, often for a clunky VR headset tethered to a powerful gaming computer.

That changed last year in the pandemic. As people <u>lived more of their lives digitally</u>, they started buying more VR headsets. VR hardware sales shot up, led by <u>Facebook's Oculus Quest 2</u>, a headset that was introduced last fall, according to the research <u>firm IDC</u>.

To build on the momentum, Facebook on Thursday introduced a virtual-reality service called Horizon Workrooms. The product, which is free for Quest 2 owners to download, offers a virtual meeting room where people using the headsets can gather as if they were at an in-person work meeting. The participants join with a customizable cartoon avatar of themselves. Interactive virtual white boards line the walls so that people can write and draw things as in a physical conference room.

The product is another step toward what Facebook sees as the ultimate form of social connection for its 3.5 billion users. "One way or another, I think we're going to live in a mixed-reality future," Mark Zuckerberg, Facebook's chief executive, said at a media round table that was conducted this week in virtual reality using Workrooms.

At the event, the avatars of Mr. Zuckerberg and roughly a dozen Facebook employees, reporters and technical support staff assembled in what looked like an open and well-lit virtual conference room. Mr. Zuckerberg's avatar sported a long-sleeve henley shirt in a dark Facebook blue. (My avatar had a checkered red flannel shirt.) Since Workrooms show participants only as floating torsos seated around a wooden desk, no one worried about picking out a pair of pants.

Facebook was early to virtual reality. In 2014, it paid \$2 billion to <u>buy the headset start-up Oculus VR</u>. At the time, Mr. Zuckerberg promised that the technology would "enable you to experience the impossible."

The deal jump-started a wave of acquisitions and funding in virtual reality. Investment in VR start-ups swelled, while companies like HTC and Sony also promised VR headsets for the masses. Microsoft developed the <u>HoloLens</u>, which were hologram-projecting glasses.

But the hype fizzled fast. The first generation of most VR hardware — including Facebook's Oculus Rift — was expensive. Almost all of the headsets required users to be tethered to a personal computer. There were no obvious "killer apps" to attract people to the devices. Worse still, some people got nauseated after using the products.

The next generation of VR headsets focused on lowering costs. <u>Samsung's Gear VR</u>, Google Cardboard and Google Daydream all asked consumers to strap on goggles and drop in their smartphones to use as VR screens. Those efforts also failed, because smartphones were not powerful enough to deliver an immersive virtual reality experience.

"People would always ask me, 'What VR headset should I buy?" said Nick Fajt, chief executive of Rec Room, a video game popular among virtual reality enthusiasts. "And I'd always respond, 'Just wait."

To adjust, some companies began pitching virtual reality not for the masses but for narrower fields. Magic Leap, a start-up that promoted itself as the next big thing in augmented reality computing, shifted to selling Page 32 of 148 © 2022 Factiva, Inc. All rights reserved.

VR devices to businesses. Microsoft has gone in a similar direction, with a particular focus on military contracts, though it has said it is "absolutely" still working toward a mainstream consumer product.

In 2017, even Mr. Zuckerberg acknowledged on an earnings call that Facebook's bet on Oculus was <u>"taking a bit longer"</u> than he initially thought.

Facebook spent the next few years on research and development to eliminate the need for a tethered cable connecting the VR headset to the PC, freeing up a user's range of movement while still keeping the device powerful enough to provide a sense of virtual immersion.

It also worked on "inside-out tracking," a way to monitor the position of a VR headset relative to its environment, writing new algorithms that were more energy efficient and did not eat through a device's battery power too quickly.

Atman Binstock, Oculus's chief architect, said there were also improvements in simultaneous localization and mapping, or "SLAM tracking," which allows a VR device to understand the unmapped space around itself while also recognizing its own position within that space. Advances in SLAM tracking have helped developers build more interactive digital worlds.

The changes helped lead to the \$299 Quest 2 last year, which does not require a PC or other cumbersome hardware to use and has been relatively simple to set up.

Facebook does not break out sales numbers for Oculus, but revenue from the headsets more than doubled over the first three months of the Quest 2's availability. Facebook has sold five million to six million of the headsets, <u>analystsestimated</u>.

That was roughly the same amount that Sony's PlayStation VR, widely regarded as the most successful VR device on the market, sold from 2016, when it had its debut, through 2020. (Sony has announced an upcoming VR system that will work with the PlayStation 5, its flagship gaming console.)

Andrew Bosworth, vice president of Facebook Reality Labs, which oversees the Oculus product division, said Facebook had also paid tens of millions of dollars to developers to help create games and other apps for VR. "Even when it was tough for all of VR in 2016, developers needed us to take some of the risk out," he said in an interview.

Oculus has also bought several gaming studios and other VR-based companies, like BigBox VR, Beat Games and Sanzaru Games, to build more virtual reality content.

With Workrooms, Facebook wants to take Oculus beyond just gaming. The service is intended to provide a sense of presence with other people, even when they might be sitting halfway across the world.

Mr. Zuckerberg sees the project as part of the next internet, one that technologists call "the metaverse." In Mr. Zuckerberg's telling, the metaverse is a world in which people can communicate via VR or video calling, smartphone or tablet, or through other devices like smart glasses or gadgets that haven't been invented yet.

There, people will maintain some sense of continuity between all the different digital worlds they inhabit. Someone might buy a digital avatar of a shirt in a virtual reality store, for instance, and then log off but continue wearing that shirt to a Zoom meeting.

For now, that vision remains distant. VR adoption can be measured in the tens of millions of users, compared with the billions of owners of smartphones. Facebook has also stumbled, issuing a recall this year on the Quest 2's foam pad covers after some users reported skin irritation. The company has offered new, free silicon padded covers to all Quest 2 owners.

At the Workrooms event with reporters this week, Mr. Zuckerberg spoke but had to leave at one point and rejoin the room because his digital avatar's mouth was not moving when he spoke.

"Technology that gives you this sense of presence is like the holy grail of social experiences, and what I think a company like ours was designed to do over time," Mr. Zuckerberg said, after the glitch was fixed and his avatar's mouth was moving again. "My hope is that over the coming years, people really start to think of us not primarily as a social media company, but as a 'metaverse' company that's providing a real sense of presence."

PHOTOS: Facebook has introduced a service called Horizon Workrooms, a virtual meeting room in which participants join with a customizable cartoon avatar of themselves. Owners of Quest 2, left, can download the service for free. (PHOTOGRAPHS BY FACEBOOK; JIM WILSON/THE NEW YORK TIMES) (B3)

Document INHT000020210820eh8l0000e



Mental Health Diseases and Conditions - Anxiety Disorders; Research from Opole University of Technology in Anxiety Disorders Provides New Insights (Virtual Reality Interventions for Needle-Related Procedural Pain, Fear and Anxiety-A Systematic Review and Meta-Analysis)

504 words
20 August 2021
Health & Medicine Week
HAMW
5218
English

© Copyright 2021 Health & Medicine Week via NewsRx.com

2021 AUG 27 (NewsRx) -- By a News Reporter-Staff News Editor at Health & Medicine Week -- Investigators publish new report on anxiety disorders. According to news originating from Opole, Poland, by NewsRx editors, the research stated, "Needle-related procedures are often a source of pain, anxiety and fear in young patients. This systematic review aimed to investigate the effectiveness of virtual reality (VR) on reducing pain, fear and anxiety in pediatric patients undergoing needle-related procedures."

The news editors obtained a quote from the research from Opole University of Technology: "Pain, anxiety, fear, changes in blood pressure and heart rate as well as satisfaction were evaluated as outcomes during needle-related procedures in VR compared with standard care conditions. A meta-analysis was performed, taking into account online databases. Two authors independently conducted literature searches in December 2020. The last search was conducted in March 2021 from a total of 106 records, 7 met our inclusion criteria. One study was excluded from the meta-analysis due to insufficient data. VR was applied as a distractor during venous access. Statistically significant benefits of using VR were shown in children's pain scores, where VR significantly decreased symptoms (\* \* n\* \* = 3204 patients, MD = -2.85; 95% CI -3.57, -2.14, for the Wong-Baker Faces Pain Rating Scale and \* \* n\* \* = 2240 patients, MD = -0.19; 95% CI -0.58, 0.20, for the Faces Pain Scale-Revised). The analysis of fear, anxiety and satisfaction scores revealed no significant differences between the conditions, as the studies were too heterogeneous to be pooled."

According to the news editors, the research concluded: "Distraction using virtual reality may be an effective intervention for reducing pain in children undergoing needle-related medical procedures. However, further research in the implementation of VR as a distractor for children and adolescents is required, due to the limited research into this field."

For more information on this research see: Virtual Reality Interventions for Needle-Related Procedural Pain, Fear and Anxiety-A Systematic Review and Meta-Analysis. Journal of Clinical Medicine, 2021,10(3248):3248. (Journal of Clinical Medicine - <a href="http://www.mdpi.com/journal/jcm">http://www.mdpi.com/journal/jcm</a>). The publisher for Journal of Clinical Medicine is MDPI AG.

A free version of this journal article is available at <a href="https://doi.org/10.3390/jcm10153248">https://doi.org/10.3390/jcm10153248</a>.

Our news journalists report that additional information may be obtained by contacting Oliver Czech, Descartes' Error Student Research Association, Faculty of Physical Education and Physiotherapy, Opole University of Technology, 45-758 Opole, Poland. Additional authors for this research include Adam Wrzeciono, Anna Rutkowska, Agnieszka Guzik, Pawel Kiper, Sebastian Rutkowski.

Keywords for this news article include: Opole University of Technology, Opole, Poland, Europe, Anxiety Disorders. Health and Medicine, Mental Health Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document HAMW000020210820eh8k000pt



News

Now Facebook brings 'virtual reality' to work from your home

Adrian Weckler
526 words
20 August 2021
Irish Independent
IINM
1; National
31
English
(c) 2021 Independent Newspapers Ireland Ltd
TECHNOLOGY

FACEBOOK has launched what it thinks is an answer to the office-versus-home working debate for companies and staff.

Its 'Horizon Workrooms' is a virtual reality platform that lets people 'meet' for work by strapping on Facebook's VR headset, the Oculus Quest 2. Once worn, the user can 'sit' around a virtual table and 'see' their colleagues' virtual gestures and body language.

The launch came just as US competition officials refiled their lawsuit against Facebook, seeking to revive a case that a judge threw out in June. The Federal Trade Commission's new complaint alleges Facebook violated antitrust laws by buying Instagram and WhatsApp in order to eliminate them as competitors. The FTC is asking the court to unwind the acquisitions.

Meanwhile, the company itself has launched Horizon Workrooms, which lets users share laptop screens while associates who don't have a VR headset can dial into the virtual room using a normal videoconferencing service which will be displayed in the virtual room.

Facebook says that it is using the system itself for meetings within the social networking giant's corporate operations.

"Working without colleagues around you can feel isolating at times, and brainstorming with other people just doesn't feel the same if you're not in the same room." said the company of the new service, which will be free.

The Oculus Quest 2 headset typically costs around €400.

The Workrooms virtual environment will allow hand movements to be visible without a controller, as well as facial orientation. It means that participants will be able to tell who is paying attention to them and who has drifted off to do something else.

They can also scan in their own physical desk, which then becomes interactive for other users, who can share documents by virtually dropping them there.

And the use of 'spatial audio' means that users hear people around the 'room' based on where they're seated. This, says Facebook, is meant to replicate what "they'd sound in a real room, making conversations flow smoothly".

Meanwhile, collaboration tools such as whiteboards will also be included, while Facebook says that users will be able to choose from a wide range of avatars.

The company's virtual move comes as large companies continue to put off bringing people back to offices on a pre-Covid basis. The tech giant, which employs over 5,000 people in Ireland, now says that it is delaying a full return until January 2022 at the earliest. Other companies are starting to push office-attendance dates back, as a combination of the Delta variant and health advice from Nphet makes a full return in 2021 look increasingly unlikely.

Virtual reality has seen sluggish growth in recent years, despite Facebook founder Mark Zuckerberg predicting that it would be the next major computing platform, rivalling laptops and smartphones.

Inhibitors to takeup of the technology include clunky headsets, limited non-gaming applications and lingering problems with motion sickness that are still experienced by some people who try the technology.

Page 35 of 148 © 2022 Factiva, Inc. All rights reserved.

The Oculus Quest 2 headset typically costs around €400

Document IINM000020210820eh8k0000u



CE Noticias Financieras English

Horizon Workrooms: Virtual Reality has come to Facebook

531 words
19 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Video calls are a thing of the past for Facebook. Mark Zuckerberg's company has developed a new ideal tool for the virtual era with the intention of making it last over time: Horizon Workrooms, the virtual reality space for conferences and work meetings that will seek to shape the CEO's metaverse.

This space appears as an ideal way to combine face-to-face and teleworking through virtual reality glasses developed by the specialized company Oculus. It will be totally free and open to all users.

Horizon Workrooms, an unlimited space for ideas "Sometimes you need to be in the same room, even when you're miles away. Welcome to this place with unlimited space for ideas", describes the presentation video of the tool developed in conjunction with Oculus, one of the leading virtual reality companies.

This virtual space allows each user to create their own personalized avatar, with cartoonish features and varied clothing designs.

However, the highlight is the work tools. In addition to functioning as a conference room for dialogue, this application allows users to write and draw on virtual whiteboards, present videos, share files and create collaborative documents.

Oculus Technology The Oculus company is famous for its innovation in virtual reality technology, both in evewear and motion-sensing controllers.

Through a partnership with Mark Zuckerberg, the company collaborated in the development of the software that is presented as a great help for those who have to hold meetings and, for various reasons, cannot do them in person.

"Horizon Workrooms is revolutionizing remote collaboration with virtual reality meetings. Features like virtual whiteboards, spatial audio, and mixed reality (you can bring your real computer and keyboard into virtual reality!) create a space for good ideas to become great," the Oculus company said.

Although the Facebook app is free, you need the device to log in. The advanced design of the Oculus Quest 2 allows for more fluid virtual movements, with high-definition glasses and is 100% wireless. In Argentina, the pack of glasses and two controllers is sold from 120,000 pesos.

The Zuckerberg metaverse, a child's dream In an interview with CBS, the creator of Facebook said he was "excited" by the virtual reality projects and revealed that it is a hobby that keeps small:"I think of the metaverse as the next generation of the Internet".

This is not Zuckerberg 's first foray into virtual realms. In July of this year he presented "Smart Glasses", smart glasses produced in collaboration with the famous Ray-Ban brand.

The CEO's idea is that these glasses are one of the first steps to build a"metaverse", that is, a shared universe that will be populated with Facebook users and digital ads.

It consists of a multimodal technology platform that is supposed to combine virtual and physical spaces, and is used for shopping, working and socializing. Facebook, of course, will use it to sell more advertising.

Little by little, and with the new work tool, Mark began the expansion by digital domains and it is not ruled out the presentation of new similar projects in the coming months.

Document NFINCE0020210820eh8j0019k



CE Noticias Financieras English Facebook introduces "Horizon Workrooms", a tool for meetings in virtual reality

290 words 19 August 2021 CE NoticiasFinancieras **NFINCE Enalish** 

Copyright © Content Engine LLC

United States - Technology continues to adapt to the times, because with the transfer of different activities to the virtual and remote mode by the pandemic of Covid-19, platforms like Facebook have developed new tools, such is the case of "Horizon Workrooms" one of its new applications with which you can conduct meetings in virtual reality.

"Horizon Workrooms" is a proposal that seeks to lead the business of remote work and also provide a space for those who are not very skilled at speaking publicly.

As mentioned by the same company, the platform uses Oculus virtual reality goggles for the user to participate in the meeting with an avatar and interact with other users and participants in a meeting.

"You can use a huge virtual whiteboard to sketch out ideas, bring your computer and keyboard into virtual reality to work with others, or just have expressive conversations that feel more like you're together in person," Facebook said in a statement.

This new platform will have the ability to integrate 16 attendees to a meeting with their seated avatars, although this format has supports a maximum of 50 people the rest after the 16 will only appear as a connected box.

#### Read more:

Mexican aerospace industry will grow 7.5% the end 2021, estimates specialist "Workrooms will not use your conversations and work materials to inform ads on Facebook. In addition, Passthrough processes images and videos of your physical environment from the device's sensors locally. Facebook and third-party applications do not access, view or use these images or videos to target ads," the company added.

No more secret game and no more secret game

Document NFINCE0020210820eh8j0005i



CE Noticias Financieras English

Facebook launches a virtual reality telecommuting app, the first step towards the "metaverse".

502 words
19 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook on Thursday launched a test of a new virtual reality telecommuting app, in which users of the company's Oculus Quest 2 viewers can hold meetings as avatar versions of themselves

. Horizon Workrooms is seen as Mark Zuckerberg's company's first step into the metaverse. It will be a free software that aims to transfer the experiences of face-to-face meetings to Oculus Quest 2users .

Zuckerberg and his team see this initiative the future of the home office, not in the near future, but before the end of the year

. They also see it as an addition to video chat: a way to exchange ideas, converse and collaborate. Facebook's intention is that their virtual reality headsets will provide a fully immersive experience and go beyond gaming

and can be leveraged to meet in virtual offices. To do this, they have designed several features to expand the amenities in the virtual office

. Thus, the platform allows you to create a mixed reality desktop, that is, you can see the screen of the laptop itself. This also allows other users who are in the same virtual room to see each other's screens. The beta test of Facebook's Horizon Workrooms app comes as many businesses continue to work from home after the Covid-19 pandemic shut down physical workspaces

and a new variant is spreading around the world. This video conferencing tool can also be used from a PC and any mobile phone

- . The meeting organizer will simply have to share the meeting link and the attendees without VR glasses will appear on a video screen, just like in any virtual meeting. What is the "metaverse "Facebook sees its latest launch as a first step toward building the futuristic "metaverse" that its CEO, Mark Zuckerberg, has touted in recent weeks
- .The world's largest social network has invested heavily in virtual and augmented reality
- , developing hardware such as its Oculus VR headset, working on goggles and wristband technologies and buying several virtual reality game studios, such as BigBox VR.Gaining dominance in this space, which Facebook is betting will be the next big computing platform, will allow it to be less reliant in the future on other hardware makers, such as Apple Inc, the company said.

Facebook's vice president of its Reality Labs group, Andrew "Boz" Bosworth, said the new Workrooms app gives "a good idea" of how the company envisions elements of the metaverse

."This is one of those fundamental steps in that direction," Bosworth told reporters during a press conference in virtual reality.

The term "metaverse," coined in the 1992 dystopian novel "Snow Crash," is used to describe immersive shared spaces accessed through different platforms where the physical and digital converge. Zuckerberg has described it as an "embodied internet."

"A metaverse might be the closest thing to a teleportation device,"

Zuckerberg commented during an interview with The Verge.SLLook

also

Document NFINCE0020210819eh8j00ai0



#### Facebook unveils virtual reality 'workrooms'

227 words 19 August 2021 New Vision NEWVEN English

© 2021 NEWVISION, All Rights Reserved, Provided by Syndigate info, an Albawaba.com company

Facebook on Thursday unveiled technology for "workrooms," allowing remote collaboration for people using its Oculus virtual reality gear.

The "Horizon Workrooms" project allows users to switch back and forth from virtual reality to web conferencing to adapt to different situations.

"Workrooms is our flagship collaboration experience that lets people come together to work in the same virtual room, regardless of physical distance," the company said in an Oculus blog post.

"It works across both virtual reality and the web and is designed to improve your team's ability to collaborate."

This enables participants to join a meeting as an avatar in virtual reality or by video calling.

The announcement comes as the social media giant moves to blend its hardware, gaming and virtual reality units to build an immersive digital world known as the "metaverse," borrowing a term coined by sci-fi writer Neal Stephenson.

The project is seen as central to Facebook's future by chief executive Mark Zuckerberg, who is seeking to diversify the company beyond social networking and digital advertising.

It also comes with more people working remotely during the pandemic and companies seeking new ways to enable collaboration among scattered employees.

The Oculus division has largely been used for gaming but is gaining traction in other areas as virtual reality is adapted for tourism, remote work and other applications.

Document NEWVEN0020210819eh8j001e2



CE Noticias Financieras English

Facebook launches Horizon Workrooms for Virtual Reality work meetings; this is what the platform will look like

382 words
19 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook has announced its new Horizon Workrooms platform, a service that allows to carry out work meetings in digital environments through the use of their virtual reality helmets Oculus Quest 2, being possible to interact with other people through their avatars.

Horizon Workrooms, which is available from Thursday in open beta in countries where Oculus Quest 2 is supported, is the "flagship collaboration experience" of Facebook, as reported by the company through a statement.

m{1563988}Theplatform allows users to different functions in a mixed reality environment, such as holding business meetings, regardless of the physical distance at which employees are located

.Horizon Workrooms allows users to participate in meetings in virtual environments in virtual reality through their Oculus avatars, as well as spatial audio technology for greater immersion by perceiving sounds from different locations in the virtual space.

To do this they use Facebook's Oculus Quest 2 virtual reality viewers, but also other compatible external tools such as computers and keyboards that can also be brought into reality.

The service is compatible with the new Oculus Remote application for Windows and Mac computers, and in this way users can share the content of their screens in the virtual reality environment to the other participants in the meeting, as well as other functions such as taking notes.

What will Facebook's virtual offices be like? Horizon Workrooms virtual offices also include a whiteboard with which users can interact and draw through Oculus controllers. It is also possible to paste images from a computer onto the whiteboard, and the tool tracks the position of the user's hands.

The digital rooms of this platform are not always the same, but can be customized according to the needs of each meeting, depending on whether collaboration, conversation or a presentation is more necessary.

While users can join virtual meetings using the Oculus Quest 2 virtual reality goggles, the new platform also allows users to join from the computer directly, making a video call.

Horizon Workrooms supports up to 16 participants at a time in a virtual reality meeting, but can go up to 50 people by adding members via video call.

m{1563987}?Inb

?

Document NFINCE0020210819eh8j008or



CE Noticias Financieras English

Facebook launches virtual reality app for telecommuting

241 words
19 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Pandemic brought new forms of interaction in the workplace, and in some cases telecommuting seems to be here to stay. Horizon Workrooms is the new bet of Mark Zuckerbeg that came to take advantage of this new trend by launching a free application that allows remote workers interact remotely with virtual reality glasses Oculus Quest 2.

Workers participating in meetings are represented by a custom avatar (developed by the virtual gaming platform Facebook Horizon) in 3D animated workspaces and can use virtual whiteboards to sketch ideas.

Read Also Facebook revenues and profits beat estimates but user numbers disappoint Workrooms can bring up to 16 people together in virtual reality "regardless of physical distance." Facebook said in a statement.

While the app is free, the virtual reality glasses are not and can cost around 400 euros. Still, those who do not have the glasses can enter via smartphone, desktop or laptop and participate with various levels of interaction.

Facebook guarantees privacy in the use of the application and ensures that Workrooms may not use the conversations and work materials for advertising purposes on the social network.

In addition, anyone who signs up for the application must agree to follow the Facebook Community Standards and the Virtual Reality Conduct Policy If other members violate these policies, users can contact the team administrator, who can take action, such as removing someone from the room

.

Document NFINCE0020210819eh8j00825



CE Noticias Financieras English

Facebook launches Horizon Workrooms, the new remote work application in virtual reality

354 words
19 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook today launched a remote work app, on a trial basis, in which users of the Oculus Quest 2 headset will be able to meet as avatar versions of themselves, when using virtual reality as the website.

The US company sees its latest release as a first step towards building the futuristic "metaverse" that its CEO, Mark Zuckerberg, has touted in recent weeks. In this sense, it will be accompanied by the hardware development of Oculus VR, which is also working on glasses and wristband technologies.

As the Covid-19 pandemic involves restrictions on social spaces and the Delta variant spreads around the world, the beta test of Horizon Workrooms comes as companies continue with home office dynamics.

Unique features to be implemented will include mixed reality desktop and keyboard tracking, hand tracking, remote desktop streaming, video conferencing integration, spatial audio, and the new Oculus Avatars.

It will also be possible to exchange ideas when writing on the whiteboard, working on a document or listening to other people in a relatively natural way.

It will also expand the size to fit the group, and customize the design of the same. Along these lines, up to 16 people will be accepted in virtual reality together, and up to 50 people in total on a call, including video participants.

Those who do not have virtual reality glasses will be able to participate in the rooms with a normal computer in video call mode.

In this way, Facebook is betting that it will be the next big computing platform because it will allow it to be less dependent on other hardware manufacturers, such as Apple Inc, the company said.

Reality Labs vice president Andrew "Boz" Bosworth said Workrooms gives "a good idea" of how the company envisions the elements of the metaverse. "This is one of those fundamental steps in that direction," Bosworth remarked.

The term "metaverse," coined in the 1992 dystopian novel "Snow Crash," is used to describe immersive shared spaces accessed through different platforms where the physical and digital converge.

Document NFINCE0020210819eh8j0071z



#### Facebook Unveils Virtual Reality App For Remote Working

Robert Hart, Forbes Staff 409 words 19 August 2021 Forbes.com FBCOM English © 2021 Forbes LLC

**Topline** 

With more and more people changing how and where they work during the Covid-19 pandemic, Facebook launched a new virtual reality app Tuesday to allow remote workers to connect and interact from afar, enacting another part of CEO Mark Zuckerberg's plan to make Facebook into a "metaverse" company of an embodied and interactive digital world.

**Kev Facts** 

Facebook<u>introduced</u> the Horizon Workrooms Tuesday, a free app for owners of its (not free) Oculus Quest 2 headset.

Workrooms is Facebook's "flagship collaboration experience" that can bring up to 16 people together in virtual reality "regardless of physical distance," the company said in a statement.

Workers attending meetings with headsets—up to 50 can attend in total—are represented by a customizable cartoon avatar of themselves, can gather as if they are meeting in-person and will be able to use virtual white boards to sketch out ideas.

"We shouldn't really have to physically be together to feel present, collaborate or brainstorm," Zuckerberg toldreporters in a virtual briefing, adding that while "video conferencing has taken us pretty far... I'm not super excited about having most meetings be over video" when people go back to the office.

Andrew Bosworth, VP of Facebook Reality Labs, <u>said</u> the company has been using Workrooms to meet internally for about a year and that the pandemic "has only given us greater confidence" in the technology.

Key Background

Workrooms is a part of Facebook's broader effort to become a "metaverse" company. The metaverse is, broadly put, a virtual and interactive digital space. As a concept, it traces its roots to the immense, collective digital spaces in works of science fiction like "Snow Crash." Facebook has invested heavily in the technologies needed to make this—and the metaverse as a whole, which has yet to take off—happen, especially virtual and augmented reality. While not Facebook's first foray into virtual reality, Workrooms is an ambitious attempt to take it mainstream and out of fairly niche areas like gaming. Many other companies are also vying for a role in creating this digital universe and, while not fully immersive, the popularity of augmented reality games like Pokemon Go and virtual worlds like Fortnite and Roblox highlight its potential.

Further Reading

Are We in the Metaverse Yet? (NYT)

Mark In The Metaverse (Verge)

Facebook Releases Blockbuster App For Remote Work (Forbes)

Document FBCOM00020210819eh8j000ma



Lifestyle, Tech

Facebook reveals its future of meetings: cartoon colleagues talking to each other in virtual reality

Adam Smith 790 words 19 August 2021 17:41 Independent Online INDOP English

© 2021. Independent Digital News and Media Ltd. All Rights Reserved

'Workrooms' is a new feature for Oculus Quest devices that uses hand tracking and spatial audio to recreate meeting rooms

<u>Mark Zuckerberg</u> – or a cartoon version of the <u>Facebook</u> chief executive – has revealed what he hopes is the future of meetings, in the form of <u>virtual reality</u> rooms.

The company has revealed "Horizon Workrooms", which shows avatars of everyone in a meeting talking with each other, as if they were really together.

It is the company's most ambitious effort yet to take its social network into virtual reality, allowing people to chat together while working from home or different countries.

Facebook's big new product launch today is a VR work-from-home thing ('Horizon Workrooms').

In other words, strap on a VR headset (Oculus Quest 2) and 'see' your colleagues around a table.https://t.co/YI1KPLLm4Fpic.twitter.com/lvKshnXpVX

Adrian Weckler (@adrianweckler) August 19, 2021

Horizon Workrooms is available as an app for Facebook's VR headset, the Oculus Quest 2. It includes mixed-reality desk and keyboard tracking, hand tracking, remote desktop streaming, video conferencing integration, spatial audio, and the new Oculus Avatars -animated figures that can be customised to look like the user.

Users are able to join the meeting in virtual reality or dial into a virtual room through a video call.

"Workrooms is a mixed reality experience, letting you bring your physical desk and compatible tracked keyboard into the virtual room with you, where you can see them sitting on the virtual meeting table in front of you", Facebook says. The system uses the Oculus Remote Desktop companion app for Mac and Windows computers to access users "entire computer" in virtual reality, taking notes and sharing screens with colleagues.

Facebook is using spatial audio to make the virtual room feel more realistic, which should give the same sense of distance and space as if the meeting was taking place in a real room.

This appears to work adequately. "When someone talked in one corner of the room, it sounded like their voice was coming from that direction. At one point the seating chart was changed and I felt as if someone sitting behind me in VR was actually speaking from behind my head", The Verge's Alex Heath, who has used the virtual reality product, wrote.

That room is also customisable with a "seating layout for every occasion" such as conversations or presentations, with the virtual space scaling up and down to fit the size of the group.

Up to 16 people can be in the same virtual room together with up to 50 people being able to coin a single call, which can be managed via Outlook and Google Calendar. Video participants will show up on a video screen in the virtual room, "just like a real conference room".

Facebook says that it has designed Workrooms to prioritise hand tracking and user interface, rather than controllers, which it says creates "a more natural and expressive social experience and lets you switch more easily between physical tools like your keyboard and controllers when needed."

Workrooms is only for users over the age of 18, and Facebook says that it will not use work conversations and materials to inform ads on Facebook.

"The audio contents of your meeting are processed on Facebook servers but not stored, unless someone records and sends us a clip as part of a report", it adds, with the images and videos taken of users' physical environments processed locally and inaccessible to Facebook or other third-party apps.

Andrew Bosworth, VP of Facebook Reality Labs, told CNN he had been using the feature internally for a year and that he expects people will use the app for about 30 minutes at a time.

A team at Facebook is apparently working on improving the ergonomics of virtual reality and, as well as reducing its weight of the headset.

The new product is part of the company's aim to pivot towards being a 'metaverse' company, <u>according to</u> CEO Mark Zuckerberg.

The metaverse, in Mr Zuckerberg's vision, will be about "engag[ing] more naturally" with the behaviours we already exhibit – such as reaching for our smartphones immediately upon waking up.

"We have these phones. They're relatively small. A lot of the time that we're spending, we're basically mediating our lives and our communication through these small, glowing rectangles. I think that that's not really how people are made to interact", Mr Zuckerberg said

Mr Zuckerberg has made such comments before, hypothesizing that humans should <u>"be teleporting, not transporting ourselves"</u> into various environments through virtual and mixed reality environments.

Document INDOP00020210819eh8j003ml



#### Facebook Unveils Virtual Reality App For Remote Working

Robert Hart, Forbes Staff 166 words 19 August 2021 Forbes.com FBCOM English © 2021 Forbes LLC

**Topline** 

With more and more people changing how and where they work during the Covid-19 pandemic, Facebook launched a new virtual reality app Tuesday to allow remote workers to connect and interact from afar, enacting another part of CEO Mark Zuckerberg's plan to make Facebook into a "metaverse" company of an embodied and interactive digital world.

**Key Facts** 

Facebook<u>introduced</u> the Horizon Workrooms Tuesday, a free app for owners of its (not free) Oculus Quest 2 headset.

Workrooms is Facebook's "flagship collaboration experience" that can bring up to 16 people together in virtual reality "regardless of physical distance," the company said in a statement.

Workers attending meetings with headsets—up to 50 can attend in total—are represented by a customizable cartoon avatar of themselves, can gather as if they are meeting in-person and will be able to use virtual white boards to sketch out ideas.

This is a developing story.

Document FBCOM00020210819eh8j000jj



## Facebook Technologies LLC; Patent Issued for Wearable device with fiducial markers in virtual reality (USPTO 11068057)

1,919 words 9 August 2021 Journal of Engineering JOENG 12837 English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 AUG 9 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- Facebook Technologies LLC (Menlo Park, California, United States) has been issued patent number 11068057, according to news reporting originating out of Alexandria, Virginia, by VerticalNews editors.

The patent's inventors are Corson, Nicholas Roy (Woodinville, WA, US), Keller, Sean Jason (Bellevue, WA, US), King, Raymond (Woodinville, WA, US), Ochs, Garett Andrew (Seattle, WA, US), Perek, David R. (Seattle, WA, US), Trutna, Tristan Thomas (Seattle, WA, US).

This patent was filed on June 2, 2020 and was published online on July 20, 2021.

From the background information supplied by the inventors, news correspondents obtained the following quote: "The present disclosure generally relates to a system for haptic feedback to a user, and specifically to haptic devices that include fiducial markers to track the movement of a user's fingers in the virtual reality (VR) system.

"Virtual reality (VR) is a simulated environment created by computer technology and presented to a user, such as through a VR system. Typically, a VR system includes a head-mounted display (HMD) that provides visual and audio information to the user. Conventional VR systems create virtual body parts (e.g., a virtual finger) in the simulated environment and use a tracking system to track a user movement in a physical space. The simulated environment presented to the user may be updated according to the user movement in the physical space."

Supplementing the background information on this patent, VerticalNews reporters also obtained the inventors' summary information for this patent: "A locator assembly within a virtual reality environment enables a user to interact with virtual objects via individual fingers. The locator assembly includes one or more fiducial rings that can be worn on portion of the user's body. In some embodiments, a fiducial ring may be worn one, e.g., a finger, an arm, a leg, etc. Each fiducial ring includes a ring body that includes one or more fiducial markers. Each fiducial marker is positioned at a different location on the ring body. The fiducial markers may be configured as a unique combination on every fiducial ring.

"An imaging device is configured to capture one or more images of each of the fiducial rings within the locator assembly. The imaging device may be an optical imaging device (e.g., visible light, infrared light, etc.), some other type of imaging device (e.g., radio frequency imaging, acoustic imaging (e.g., ultrasound), etc.), or some combination thereof. In one embodiment, the fiducial ring may include a sensor to sense a motion of the user's finger. Based on the sensed motion, the locator assembly may send a corresponding output to the console. The console may configure the imaging device to capture one or more images of the motion-sensed fiducial ring.

"A console receives the images that include the fiducial markers on each fiducial ring. Based on the received images of the fiducial markers, the console determines a location of the fiducial ring that corresponds to the imaged fiducial marker. The console determines a position of the fiducial ring within the virtual reality environment, based on the determined location of the fiducial marker on the fiducial ring. Based on the determined position of the fiducial rings, the console provides content to a head-mounted display.

"The figures depict embodiments of the present disclosure for purposes of illustration only. One skilled in the art will readily recognize from the following description that alternative embodiments of the structures and methods illustrated herein may be employed without departing from the principles, or benefits touted, of the disclosure described herein."

The claims supplied by the inventors are:

- "1. A system comprising: a wearable device having a body that includes a plurality of fiducial markers that are (i) positioned at different locations on the body and (ii) configured to emit light, wherein the body is sized to fit on a portion of a user's body; an imaging device, separate from the wearable device, that is configured to capture images that include the light emitted from the plurality of fiducial markers; and a console configured to: receive, responsive to a motion of the portion of the user's body, at least one image with the light emitted from the plurality of fiducial markers, determine a position of the wearable device in a virtual space based in part on the at least one received image, and provide content to a headset based on the determined position of the wearable device.
- "2. The system of claim 1, wherein: the wearable device further comprises a sensor coupled to the body, and the sensor is configured to determine the position of the wearable device by sensing a motion of the wearable device.
- "3. The system of claim 1, wherein the console is further configured to: receive at least one of first calibration data from the wearable device and second calibration data from the imaging device; and determine the position of the wearable device based in part on the at least one of the first calibration data and the second calibration data.
- "4. The system of claim 1, wherein: the wearable device further comprises a sensor configured to: determine a force applied on the body; and in response to the determination, generate an information signal including a value of the force, and transmit the information signal to the console; and the console determines the position of the wearable device based in part on the information signal.
- "5. The system of claim 4, wherein the sensor detects a change in a pressure on the sensor to determine the force applied on the body.
- "6. The system of claim 1, wherein a fiducial marker of the plurality of fiducial markers is a device located at a fixed position on the body emitting at least one signal.
- "7. The system of claim 6, wherein the at least one signal emitted from the fiducial marker comprises at least one of: one or more light signals, one or more acoustic signals, and one or more radio frequency signals.
- "8. The system of claim 1, wherein: the wearable device further comprises one or more actuators that are configured to apply a haptic feedback to the portion of the user's body; the console is further configured to transmit a haptic feedback signal to the wearable device that causes the one or more actuators to apply the haptic feedback to the portion of the user's body; the wearable device is configured to receive the haptic feedback signal including an actuation signal and an amount of actuation; and the one or more actuators are further configured to apply the haptic feedback to the portion of the user's body according to the amount of actuation.
- "9. The system of claim 1, wherein the console is further configured to: receive information about a force applied on the body; and determine that a virtual touch event occurred, based on the received information.
- "10. The system of claim 1, wherein the console is further configured to determine that a virtual touch event occurred based on the determined position of the wearable device.
- "11. A method comprising: instructing at least one of a plurality of fiducial markers to emit light, each fiducial marker positioned at a different location on a body of a wearable device, wherein the body is sized to fit on a portion of a user's body; capturing, by an imaging device separate from the wearable device, images that include the light emitted from the plurality of fiducial markers; receiving, responsive to a motion of the portion of the user's body, at least one image with the light emitted from the plurality of fiducial markers; determining a position of the wearable device in a virtual space based in part on the at least one received image; and providing content to a headset based on the determined position of the wearable device.
- "12. The method of claim 11, further comprising determining the position of the wearable device by sensing a motion of the wearable device.
- "13. The method of claim 11, further comprising: receiving at least one of first calibration data from the wearable device and second calibration data from the imaging device; and determining the position of the wearable device based in part on the at least one of the first calibration data and the second calibration data.
- "14. The method of claim 11, further comprising: determining a force applied on the body; generating an information signal including a value of the force; and determining the position of the wearable device based in part on the information signal.
- "15. The method of claim 14, further comprising determining a change in a pressure on a sensor coupled to the body to determine the force applied on the body.

- "16. The method of claim 11, further comprising: transmitting, by a console, a haptic feedback signal to the wearable device that causes one or more actuators of the wearable device to apply a haptic feedback to the portion of the user's body; receiving, at the wearable device, the haptic feedback signal including an actuation signal and an amount of actuation; and applying, by the one or more actuators, the haptic feedback to the portion of the user's body according to the amount of actuation.
- "17. The method of claim 11, further comprising: receiving information about a force applied on the body; and determining that a virtual touch event occurred, based on the received information.
- "18. The method of claim 11, further comprising instructing a fiducial marker of the plurality of fiducial markers to emit at least one of: one or more light signals, one or more acoustic signals, and one or more radio frequency signals.
- "19. The method of claim 11, further comprising determining that a virtual touch event occurred based on the determined position of the wearable device.
- "20. A computer program product comprising a non-transitory computer-readable storage medium having instructions encoded thereon that, when executed by a processor, cause the processor to: instruct at least one of a plurality of fiducial markers to emit light, each fiducial marker positioned at a different location on a body of a wearable device, wherein the body is sized to fit on a portion of a user's body; capture, by an imaging device separate from the wearable device, images that include the light emitted from the plurality of fiducial markers; receive, responsive to a motion of the portion of the user's body, at least one image with the light emitted from the plurality of fiducial markers; determine a position of the wearable device in a space based in part on the at least one image; and provide content to a headset based on the determined position of the wearable device."

For the URL and additional information on this patent, see: Corson, Nicholas Roy. Wearable device with fiducial markers in virtual reality. U.S. Patent Number 11068057, filed June 2, 2020, and published online on July 20, 2021. Patent URL:

http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=11068057.PN.&OS=PN/11068057RS=PN/11068057

Keywords for this news article include: Business, Ultrasound, Facebook Technologies LLC.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOENG00020210809eh89002m6

Mental Health Diseases and Conditions - Anxiety Disorders; Shenzhen University Researchers Provide New Study Findings on Anxiety Disorders (Virtual Reality-Assisted Cognitive Behavioral Therapy for Anxiety Disorders: A Systematic Review and Meta-Analysis)

627 words
9 August 2021
Clinical Trials Week
CTRW
6447
English

© Copyright 2021 Clinical Trials Week via NewsRx.com

2021 AUG 9 (NewsRx) -- By a News Reporter-Staff News Editor at Clinical Trials Week -- Investigators discuss new findings in anxiety disorders. According to news reporting out of Shenzhen, People's Republic of China, by NewsRx editors, research stated, "We aim to explore the effectiveness of virtual reality-assisted cognitive behavioral therapy (VRCBT) in the treatment of anxiety and depression in patients with anxiety disorders. We further compare the therapeutic effect of VRCBT with that of standard cognitive behavioral therapy (CBT), as well as investigate the long-term efficacy of VRCBT."

The news editors obtained a quote from the research from Shenzhen University: "As of March 3, 2020, a total of four databases (Web of Science, PubMed, PsycINFO, and Scopus) were retrieved, and two researchers independently conducted literature retrieval and research selection and performed data extraction. Methodological quality assessment was performed using the Cochrane risk of bias tool and Grading of Recommendation, Assessment, Development, and Evaluation tool (GRADE). A total of 11 studies were included (n = 626; range, 25.3-43.8), and six randomized controlled trials were quantitatively analyzed. The main outcome was anxiety and depression, and the secondary outcome was the withdrawal rate and long-term effects. Meta-analysis showed that the therapeutic effect of VRCBT on anxiety was better than that of the waiting list group (WLG) (SMD = -0.92; 95% CI: -1.34, -0.50; p = 0.005, I2 = 66%, n = 276), while the therapeutic effect of VRCBT on anxiety was similar to that of standard CBT treatment (SMD = -0.26; 95% CI: -0.50, -0.01; p = 0.77, I2 = 0%, n = 150). We further found that the therapeutic effect of VRCBT on depression was better than that of the WLG (SMD = -1.29; 95% CI: -2.26, -0.32; p = 0.09, I2 = 58%, n = 74), while the effect of VRCBT was similar to that of standard CBT (SMD = -0.30; 95% CI: -0.67, -0.07; p = 0.39, I2 = 1%, n = 116). Of the five studies that reported withdrawal rates of patients during the VRCBT and CBT treatment process, the withdrawal rates of the VRCBT group and CBT group did not reach statistical significance (OR = 0.70, 1.48, p > 0.05); only two studies reported the long-term effectiveness of VRCBT in anxiety and depression on patients with anxiety disorders."

According to the news editors, the research concluded: "VRCBT treatment has a specific positive effect on patients with anxiety disorders (anxiety and depression). Compared with standard CBT, similar therapeutic effects can be achieved in the treatment of anxiety disorders. However, limited randomized controlled trials were included, requiring that these results be treated with caution."

For more information on this research see: Virtual Reality-Assisted Cognitive Behavioral Therapy for Anxiety Disorders: A Systematic Review and Meta-Analysis. Frontiers in Psychiatry, 2021,12. (Frontiers in Psychiatry - <a href="http://frontiersin.org/psychiatry">http://frontiersin.org/psychiatry</a>). The publisher for Frontiers in Psychiatry is Frontiers Media S.A.

A free version of this journal article is available at <a href="https://doi.org/10.3389/fpsyt.2021.575094">https://doi.org/10.3389/fpsyt.2021.575094</a>.

Our news journalists report that additional information may be obtained by contacting Jinlong Wu, Shenzhen University, Shenzhen, People's Republic of China. Additional authors for this research include Yi Sun, Gongwei Zhang, Zhenhui Zhou, Zhanbing Ren.

Keywords for this news article include: Shenzhen University, Shenzhen, People's Republic of China, Asia, Anxiety Disorders, Clinical Research, Drugs and Therapies, Health and Medicine, Clinical Trials and Studies, Cognitive Behavioral Therapy, Mental Health Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CTRW000020210809eh89000ck



Info-tech

TikTok the most downloaded non-gaming app worldwide, followed by Facebook in July: Report

Our Bureau
345 words
8 August 2021
BusinessLine Online
BSNLNO
English
© 2021 THG Publishing Pvt. Ltd.

Mumbai, August 8 Info-tech

TikTok has topped the revenue charts in 2020 and continued to do so in the first half of 2021.

TikTok was the most downloaded non-gaming app worldwide for July 2021 with over 63 million installs, according to data from Sensor Tower.

The largest number installs came from Douyin in China at 15 per cent, followed by the United States at 9 per cent, as per the report.

The app has also topped the revenue charts in 2020 and continued to do so in the first half of 2021. It was the highest grossing non-game app worldwide in H1 2021 across both the App Store and Google Play, when including Douyin on iOS in China.

"Consumers are projected to have spent more than \$920 million in TikTok during the first half of the year, up 74 per cent when compared to the year-ago period," Sensor Tower had said in its report.

In the first half of this year, the app also saw the most downloads worldwide across both app stores, reaching about 384.6 million. However, downloads were down about 38 per cent YoY compared to nearly 619 million downloads in the first half of 2020. This was due to the app no longer being available in markets such as India, Sensor Tower said.

Facebook was the second most installed non-gaming app worldwide in July 2021 with more than 53 million installs. India accounted for the highest number of installs for the app at 27 per cent, followed by the US at 7 per cent. Instagram, Messenger, and WhatsApp completed the list of top five most installed non-gaming apps worldwide for the month.

On the App Store, Facebook ranked fifth. YouTube, Instagram and WhatsApp ranked second, third and fourth on the list in terms of downloads.

On the Google Play Store, Facebook topped the charts while TikTok was in second position. It was followed by Instagram, Messenger and WhatsApp.

Document BSNLNO0020210808eh880002u



CE Noticias Financieras English

Facebook aims to end isolation when wearing virtual reality headssets

553 words
5 August 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook wants the people you interact with when you're wearing VIRTUAL REALITY glasses to see your eyes as well. The Facebook Reality Labs division has published this week a study on what it calls reverse-step virtual reality, with which it tries to make its virtual reality devices (especially the Oculus, owned by the company) less isolate its users. In their paper, the researchers claim to have devised a method to move the face to the front of the device, although they insist that it is an experimental method.

Virtual reality glasses have a Passthrough mode that allows, thanks to outdoor cameras, the user to see the real world while wearing the virtual reality device. This option is useful for quickly exiting virtual reality without taking off your headssets and can also enable a form of augmented reality by adding virtual objects to the camera image. But, as the FRL document points out, people around a helmet wearer are still unable to make eye contact when the wearer uses passthrough mode, even though the wearer can see them perfectly. That's uncomfortable if viewers are used to seeing the bare face of their friend or co-worker.

An FRL scientist, Nathan Matsuda, tried to change this situation in 2019 by installing a 3D screen in an Oculus Rift S glasses. The screen showed a virtual representation of the eye area and custom eye tracking cameras captured where Matsuda was looking, so that his avatar's eyes pointed in the same direction. The result: an artificial image showing a digital copy of his own face.

The result did not convince those responsible. Matsuda, however, kept the idea and has worked on them for the past two years in charge of a specific team. The team's helmet prototype, which will be officially unveiled at the SIGGRAPH conference next week, adds a number of lenses and cameras to the display of a standard VR helmet. The cameras capture an image of the face and eyes inside the helmet, and its movement is reflected in a digital model of the face. The image is then projected onto an outward-facing screen. That screen, according to the photos provided in the report, creates the illusion of looking through the lenses of thick glasses and seeing a pair of eyes, although in reality you still see an animated copy in real time. If the user returns to full VIRTUAL REALITY, the screen may be blank to indicate that they are no longer in contact with the outside world.

The concept is not entirely new. The Taiwanese company HTC, according to the portal The Verge, already has a facial tracking complement for its Vive Pro glasses, which maps the internal movement in an external avatar. There are also Microsoft's HoloLens, which allow you to show your face, unlike helmets like Oculus or VivePro, although many of those glasses have darkened lenses and, as the website Road to VR points out, the light projected on transparent lenses can also block the look. The prototype that facebook scientists will show, however, has a way to go before the result stops resembling the poster of the film Fear and Disgust in Las Vegas, by Terry Gilliam (1999).

Document NFINCE0020210805eh85004rf

### THE WALL STREET JOURNAL.

**Experience Report** 

C Suite

Virtual Reality Hits a Snag, Leaving Some Users With Itchy Faces; Facebook recalls foam padding for Oculus Quest 2 headset after reports of rashes

By Katie Deighton
937 words
4 August 2021
19:07
The Wall Street Journal Online
WSJO
English
Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved.



Facebook changed the way it manufactures padding for the Oculus Quest 2 headset to reduce 'a few trace substances' that could contribute to skin discomfort, a spokesman says. PHOTO: Kenny Wassus/The Wall Street Journal

It was Jeff Berling's co-worker who warned him about the rash.

Soon after Mr. Berling, 58, bought the Quest 2, a virtual-reality headset made by Facebook Inc.'s Oculus, in July, the IT contractor was told he should purchase a face-pad insert from a third-party seller. The one that comes in the box, his colleague told him, was notorious for making users' faces itchy and red.

"I was thinking, 'Yeah right," said Mr. Berling, who lives in Imperial, Mo. "But sure enough, when I used my new Quest 2 for an hour or two, my face where the insert was touching got tingly, and the skin was red and itchy in the shape of the goggles."

Facebook said last week that given the reports of skin irritation, it was voluntarily recalling the Quest 2's removable foam facial pad and pausing sales of the headset until Aug. 24. When sales resume, a silicone

Page 54 of 148 © 2022 Factiva, Inc. All rights reserved.

cover that fits over the foam will be included in every box. People who already own the headset can request a free silicone cover online.

The U.S. Consumer Product Safety Commission said Facebook received more than 5,700 reports of skin irritation—including rashes, burning and hives—after use of the foam pad on the \$299 Quest 2 headset, including 45 cases that required medical attention.

Since launching the Quest 2 in October 2020, Facebook has produced about 4 million of the foam facial interfaces in the U.S. and about 172,000 in Canada, either sold with the headsets or as separate accessories, Facebook said.

"While these reports represent a very small percentage of Quest 2 users, and the majority of reports remain unverified, we want every user to have a great experience with their Quest 2 headsets," a Facebook spokesman said. The company changed its manufacturing process to reduce "a few trace substances" that could contribute to skin discomfort, the spokesman said, declining to give details.

The recall is unlikely to deter passionate users of virtual reality, said Gracie Page, managing director of technology for Europe, the Middle East and Africa at Group SJR, a marketing agency owned by WPP PLC. But it may add fuel to the fire for those already skeptical of virtual reality, she said. "This will be another drop in the ocean [for them], a 'just one more thing,'" Ms. Page said.

Consumer virtual-reality headsets, though they have been around since the 1990s, haven't caught on in the same way that voice assistant technology or smartphones did, Ms. Page said.

Besides Facebook's Oculus, other makers of virtual-reality headsets include HTC Corp. and Sony Group Corp. Technology research firm International Data Corp. estimated that 5.6 million virtual-reality headsets were sold world-wide in 2020, up 2.5% from 2019, with Facebook accounting for 63% of shipments.

Sales have been curbed in part by the limited content available for virtual-reality headsets, said Tuong Nguyen, a senior principal analyst on the emerging technologies and trends team at research and consulting firm Gartner Inc.

Although the headsets have been used in theme parks and even in doctors' offices as an experimental form of therapy, their main use remains videogaming.

"Most of the content today is gaming, so what about users who don't game, or don't want to game?" Mr. Nguyen asked, adding that even within the videogame industry, the variety of content virtual reality offers is narrow in comparison with that of other consoles. Around 200 games can be played on Oculus Quest devices; by comparison, more than 2,600 games are available for Microsoft Corp.'s newest Xbox consoles.

The ergonomics of headsets is also an enormous barrier to virtual reality's adoption, Mr. Nguyen said. The devices are heavy, and can lead to "VR neck," a term used to describe the strain or pain felt after wearing them for a long time. The mismatch virtual reality creates between the eyes and the body can cause motion sickness. And on a practical level, the "blindness" caused by seeing one world while moving around another has led to accidents, Mr. Nguyen said.

Another hiccup: Many find the headsets ugly.

"There's a usability...issue that needs to be addressed so people are happy to have them out on display in their homes," Ms. Page said. "They either need to look more beautiful, so people are happy to have them out on display in their homes, or be less bulky and more mobile, so they can be put away and brought back out in a really fluid way."

Vendors are "furiously working to make virtual-reality devices smaller and lighter," according to Mr. Nguyen. Oculus, for example, reduced the weight of its Quest 2 headset to roughly 1.1 pounds, compared with 1.25 pounds for its predecessor, the Quest.

Mr. Berling, meanwhile, said the recall hasn't deterred him from using the Quest 2. He hasn't purchased any games yet, but has marveled at 360-degree videos of the Matterhorn, Mount Everest and Angel Falls. "It is pretty cool technology," he said.

Write to Katie Deighton at katie.deighton@wsj.com

Virtual Reality Hits a Snag, Leaving Some Users With Itchy Faces

Document WSJO000020210804eh84002jp



Applied Intelligence; New Findings from International University of La Rioja Update Understanding of Applied Intelligence (Using Meta-learning To Predict Student Performance In Virtual Learning Environments)

416 words
2 August 2021
Journal of Engineering
JOENG
English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 AUG 2 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- Current study results on Applied Intelligence have been published. According to news reporting out of La Rioja, Spain, by VerticalNews editors, research stated, "Educational Data Science has meant an important advancement in the understanding and improvemen of learning models in recent years. One of the most relevant research topics is student performance prediction through click-stream activity in virtual learning environments, which provide abundant information about their behaviour during the course."

Financial support for this research came from Universidad Internacional de La Rioja (UNIR) through the IBM-UNIR Chair on Data Science in Education.

Our news journalists obtained a quote from the research from the International University of La Rioja, "This work explores the potential of Deep Learning and Meta-Learning in this field, which has thus far been explored very little, so that it can serve as a basis for future studies. We implemented a predictive model which is able to automatically optimise the architecture and hyperparameters of a deep neural network, taking as a use case an educational dataset that contains information from more than 500 students from an online university master's degree. The results show that the performance of the autonomous model was similar to the traditionally designed one, which offers significant benefits in terms of efficiency and scalability."

According to the news editors, the research concluded: "This also opens up interesting areas of research related to Meta-Learning applied to educational Big Data."

This research has been peer-reviewed.

For more information on this research see: Using Meta-learning To Predict Student Performance In Virtual Learning Environments. Applied Intelligence, 2021. Applied Intelligence can be contacted at: Springer, Van Godewijckstraat 30, 3311 Gz Dordrecht, Netherlands. (Springer - <a href="https://www.springer.com">www.springer.com</a>; Applied Intelligence - <a href="https://www.springer.com">www.springer.com</a>; Applied Intelligence - <a href="https://www.springerlink.com/content/0924-669x/">www.springerlink.com/content/0924-669x/</a>)

Our news journalists report that additional information may be obtained by contacting Angel Casado Hidalgo, International University of La Rioja, Avda La Paz 137, Logrono, La Rioja, Spain. Additional authors for this research include Pablo Moreno Ger and Luis De La Fuente Valentin.

Keywords for this news article include: La Rioja, Spain, Europe, Applied Intelligence, Emerging Technologies, Machine Learning, Meta Learning, International University of La Rioja.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOENG00020210802eh82001b7



Mental Health Diseases and Conditions - Anxiety Disorders; University of Tromso Researchers Add New Findings in the Area of Anxiety Disorders (The Effects of Virtual Reality on Procedural Pain and Anxiety in Pediatrics: A Systematic Review and Meta-Analysis)

423 words
30 July 2021
Health & Medicine Week
HAMW
English
© Copyright 2021 Health & Medicine Week via NewsRx.com

2021 AUG 6 (NewsRx) -- By a News Reporter-Staff News Editor at Health & Medicine Week -- A new study on anxiety disorders is now available. According to news reporting originating from Tromso, Norway, by NewsRx correspondents, research stated, "Distraction and procedural preparation techniques are frequently used to manage pain and anxiety in children undergoing medical procedures. An increasing number of studies have indicated that Virtual Reality (VR) can be used to deliver these interventions, but treatment effects vary greatly."

The news correspondents obtained a quote from the research from University of Tromso: "The present study is a systematic review and meta-analysis of studies that have used VR to reduce procedural pain and anxiety in children. It is the first meta-analytic assessment of the potential influence of technical specifications (immersion) and degree of user-system interactivity on treatment effects. 65 studies were identified, of which 42 reported pain outcomes and 35 reported anxiety outcomes. Results indicate large effect sizes in favor of VR for both outcomes. Larger effects were observed in dental studies and studies that used non-interactive VR. No relationship was found between the degree of immersion or participant age and treatment effects. Most studies were found to have a high risk of bias and there are strong indications of publication bias."

According to the news reporters, the research concluded: "The results and their implications are discussed in context of these limitations, and modified effect sizes are suggested. Finally, recommendations for future investigations are provided."

For more information on this research see: The Effects of Virtual Reality on Procedural Pain and Anxiety in Pediatrics: A Systematic Review and Meta-Analysis. Frontiers in Virtual Reality, 2021,2. The publisher for Frontiers in Virtual Reality is Frontiers Media S.A.

A free version of this journal article is available at <a href="https://doi.org/10.3389/frvir.2021.699383">https://doi.org/10.3389/frvir.2021.699383</a>.

Our news editors report that more information may be obtained by contacting Rikke Nordgard, Department of Psychology, Faculty of Health Sciences, University of Tromso The Arctic University of Norway, Tromso, Norway. Additional authors for this research include Torstein Lag.

Keywords for this news article include: University of Tromso, Tromso, Norway, Europe, Pediatrics, Anxiety Disorders. Health and Medicine, Mental Health Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document HAMW000020210730eh7u00122



# Computing; Studies from University of Southern Alabama in the Area of Computing Described (A Meta-analysis of Virtual Reality Training Programs)

438 words 29 July 2021 Computer Weekly News COMWKN English

© Copyright 2021 Computer Weekly News via via VerticalNews.com

2021 AUG 4 (VerticalNews) -- By a News Reporter-Staff News Editor at Computer Weekly News -- Fresh data on Computing are presented in a new report. According to news originating from Mobile, Alabama, by VerticalNews correspondents, research stated, "Virtual reality (VR) is the three-dimensional digital representation of a real or imagined space with interactive capabilities. The application of VR for organizational training purposes has been surrounded by much fanfare; however, mixed results have been provided for the effectiveness of VR training programs, and the attributes of effective VR training programs are still unknown."

Our news journalists obtained a quote from the research from the University of Southern Alabama, "To address these issues, we perform a meta-analysis of controlled experimental studies that tests the effectiveness of VR training programs. We obtain an estimate of the overall effectiveness of VR training programs, and we identify features of VR training programs that systematically produce improved results. Our meta-analytic findings support that VR training programs produce better outcomes than tested alternatives. The results also show that few moderating effects were significant. The applied display hardware, input hardware, and inclusion of game attributes had non-significant moderating effects; however, task-technology fit and aspects of the research design did influence results. We suggest that task-technology fit theory is an essential paradigm for understanding VR training programs, and no set of VR technologies is 'best' across all contexts."

According to the news editors, the research concluded: "Future research should continue studying all types of VR training programs, and authors should more strongly integrate research and theory on employee training and development."

This research has been peer-reviewed.

For more information on this research see: A Meta-analysis of Virtual Reality Training Programs. Computers in Human Behavior, 2021;121:106808. Computers in Human Behavior can be contacted at: Pergamon-elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England. (Elsevier - <a href="https://www.elsevier.com">www.elsevier.com</a>; Computers in Human Behavior - <a href="https://www.journals.elsevier.com/computers-in-human-behavior/">www.journals.elsevier.com/computers-in-human-behavior/</a>)

The news correspondents report that additional information may be obtained from Matt C. Howard, University of Southern Alabama, Mitchell College of Business, 5811 Usa Dr S, Rm 337, Mobile, AL 36688, United States. Additional authors for this research include Melissa B. Gutworth and Rick R. Jacobs.

Keywords for this news article include: Mobile, Alabama, United States, North and Central America, Computing, Technology, University of Southern Alabama.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document COMWKN0020210729eh7t000ov

### **BUSINESS INSIDER**

A table-top gaming company handed out \$7,000 bonuses to employees after a boom in pandemic sales. That's more than Microsoft, Walmart, and Facebook.

feedback@businessinsider.com (Isobel Asher Hamilton)
416 words
28 July 2021
20:01
Business Insider
BIZINS
English
Copyright 2021. Insider Inc
Summary List Placement

Games Workshop, the UK retailer behind the hugely popular fantasy tabletop game "Warhammer," has given its staff a huge £5,000 (\$6,934) bonus for their work over the pandemic.

The company announced the bonuses for its 2,600 staff during its annual results call on Wednesday, as reported by <u>CNBC</u> and <u>The Guardian</u>. Games Workshop CEO Kevin Rountree said the bonuses were to reward "exceptional performance in helping to increase our profitability significantly" in a statement.

On top of the special \$6,900 bonus employees got an increased profit share which, according to CNBC, translated to an extra \$1,000 per employee.

The company reported a boom in sales of its paintable figurines following COVID-19 lockdowns, leading to a 69% increase in profits from £90 million (\$125 million) last year to £151.7 million (\$210 million).

Read more: Baked by Melissa's founder explains how to turn your passion into a hugely successful business just like she did: 'Surround yourself with people who have the skills you don't'

Per CNBC and the Guardian, Rountree said Games Workshops had to cope with customer demand by bringing in permanent night shifts and additional weekend shifts at its two UK warehouses.

Senior managers at the company will also split a £1.1 million (\$1.5 million) bonus pot, up from £300,000 (\$416,000) last year.

Games Workshop's pandemic employee bonus far outstrips bonuses offered at much larger companies. Earlier this month Microsoft told employees it would give out \$1,500 bonuses, and in March 2020 Facebook handed out \$1,000 bonuses to help staff work remotely. Walmart offered hourly employees bonuses of \$300 in March 2020, and by the end of 2020 said it had given out a total of \$2.8 billion to its 1.5 million employees over the course of the year — translating to roughly \$1866 in bonuses for each employee.

NOW WATCH: Why kolinsky sable paintbrushes are so expensive

#### See Also:

- \* Walmart workers can now get 100% of their college tuition and book costs covered at 10 different universities and online schools
- \* Meet the typical Walmart shopper, a 59-year-old white suburban woman earning \$80,000 a year
- \* Crocs sues Walmart, Hobby Lobby, and 19 others, claiming they sold copycat versions of its \$50 signature clogs

Document BIZINS0020210728eh7s000ry



CE Noticias Financieras English

Facebook pauses sales of its virtual reality due to skin irritation issues

366 words
28 July 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

problems suffered by some users.

The Oculus Quest 2, Facebook's virtual reality device, has suffered a stumble in its otherwise stellar trajectory. The company has had no choice but to pause sales of the device for a few weeks, in response to

At least since last December, many buyers of the Oculus Quest 2 complained on social media and forums of skin irritation issues. These virtual reality "glasses" fit the face to be able to isolate us from the outside world and therefore, it is necessary for the hardware to maintain contact with our skin.

However, the materials used by Facebook can cause problems in some skin types, something the company confirmed with an internal investigation. As a result, Facebook has decided to temporarily suspend the sale of the Oculus Quest 2, in addition to offering alternatives to users who are suffering from this problem.

Specifically, the Quest 2 will now come with a silicone case, which will adapt to the device's interface and touch with our skin. The installation is optional, but recommended if we have had skin problems with other devices. This addition will not entail additional cost, and will be available from August 24.

In addition, Facebook will offer this silicone cover to customers who have already purchased the Quest 2, for free; although it claims that only a small percentage of users actually suffered problems. We only have to order it by following the steps shown on the website that the company has enabled.

Taking advantage of this change, Facebook has revamped the Quest 2, and the version that will go on sale will include not only the silicone cover, but also more storage capacity. The new version will have 128 GB instead of the current 64 GB, for the same price of 349 euros.

The Oculus Quest 2 is the most popular VR device on the market, though that's not saying much in a sector that's still young. It is characterized by having an integrated system, so it is not necessary to connect it to a computer such as the Oculus Rift.

Document NFINCE0020210728eh7s0046i



Science

Facepalm! Facebook is forced to halt sales of Oculus Quest 2 virtual reality gaming headset after its foam mask gave users a RASH

Chris Ciaccia For Dailymail.Com 487 words 28 July 2021 01:53 Mail Online DAMONL English Copyright 2021

- \* Facebook will temporarily halt sales of the Oculus Quest 2 virtual reality headset as the old foam insert caused facial rashes
- \* The company will give all customers a new silicon cover that goes over the foam insert
- \* Starting August 24, all Quest 2 headsets will come with the silicone cover
- \* Facebook first received reports of the skin irritation in December 2020, as roughly 0.01 percent of all users experienced the irritation
- \* There are 5,716 reports of skin irritation and 45 consumers required medical attention

Facebook said on Tuesday that it would temporarily halt sales of the Oculus Quest 2 virtual reality headset as the old foam insert caused facial rashes.

In conjunction with the sales stoppage, Facebook will give all customers a new silicon cover that goes over the foam insert and starting on August 24, all Quest 2 headsets will come with the silicone cover in every box.

'As more people got into VR with Quest 2, we started receiving reports that a very small percentage of Quest 2 customers experienced some skin irritation after using the removable foam facial interface that comes with Quest 2 and is also sold separately, including as a part of the Fit Pack,' Facebook Reality Labs head Andrew Bosworth wrote in a blog post announcing the recall.

'While the rate of reports is small and the majority of reported cases are minor, we're committed to ensuring our products are safe and comfortable for everyone who uses them.'

For those who wish to get a free silicone cover, Oculus has created a <u>website</u> with step-by-step instructions on how to do so.

Facebook first received reports of the skin irritation in December 2020, according to <u>The Verge</u>, adding that roughly 0.01 percent of all users suffered from the irritation.

'We took the skin irritation reports very seriously as soon as we learned about them and, beginning in December, we promptly conducted a thorough investigation including receiving advice from leading dermatologists and toxicologists,' Bosworth added.

'These experts have advised that skin irritation can occur in some segments of the population from many household items—even things like tomatoes or shampoo—and that the rates we've seen are in line with expectations.'

According to the <u>Consumer Product Safety Commission (CPSC)</u>, there have been 'approximately 5,716 reports of incidents of skin irritation and approximately 45 reports of consumers that required medical attention.'

The CPSC added that the recall will impact 'about 4 million units' in the US and 'about 172,600 in Canada.'

In addition, to the product recall, Facebook said it would add a new 128GB model, replacing the 64GB model, retailing for \$299.

The Quest 2 headset also comes in a 256GB variety, which retails for \$399.

Document DAMONL0020210727eh7r0050r



Psychiatry; University of Hong Kong Reports Findings in Psychiatry (Risk and protective factors of Internet gaming disorder among Chinese people: A meta-analysis)

545 words
27 July 2021
China Weekly News
CHWKNW
493
English
© Copyright 2021 China Weekly News via NewsRX.com

2021 JUL 27 (VerticalNews) -- By a News Reporter-Staff News Editor at China Weekly News -- New research on Psychiatry is the subject of a report. According to news originating from Hong Kong, People's Republic of China, by VerticalNews correspondents, research stated, "Effective prevention and intervention of Internet gaming disorder require the identification of risk and protective factors. This study aims to exhaustively review the risk and protective factors of Internet gaming disorder among Chinese people."

Our news journalists obtained a quote from the research from the University of Hong Kong, "We searched for articles published from database inception to February 2020 in MEDLINE, PsycINFO, Embase, PubMed, Web of Science and two Chinese databases, CNKI and Wanfang Data. Studies were included in the meta-analysis if they addressed Internet gaming disorder, sampled people in China, presented correlational factors of Internet gaming disorder and reported the effect sizes for correlations. Reviewers independently selected the studies, assessed their validity and extracted the data. Pooled Pearson's correlations were calculated using the random effects model. In the meta-analysis, 153 studies covering 115,975 subjects were included. We identified 56 risk factors and 28 protective factors. Most risk factors strongly correlated with Internet gaming disorder fell into the category of maladaptive cognitions and motivations. Other factors that showed high effect sizes fell into various categories, including psychopathological characteristics, personality traits, cognition emotion regulation style and gaming-related factors. The only protective factor strongly correlated with Internet gaming disorder was self-control. We found that the factors related to the 'environments' show modest effect sizes compared to those related to the individual. The pooled effect sizes for most factors were not influenced by outliers and publication bias. Factors strongly correlated with Internet gaming disorder, especially maladaptive cognitions and motivations, are more likely to be proximal correlates of Internet gaming disorder and may be considered the focus of interventions."

According to the news editors, the research concluded: "We encourage further empirical and experimental studies to examine the causal pathway and the treatment efficacy."

This research has been peer-reviewed.

For more information on this research see: Risk and protective factors of Internet gaming disorder among Chinese people: A meta-analysis. Australian & New Zealand Journal of Psychiatry, 2021:000486742110257. Australian & New Zealand Journal of Psychiatry can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - <a href="https://www.sagepub.com/">www.sagepub.com/</a>; Australian & New Zealand Journal of Psychiatry - anp.sagepub.com)

The news correspondents report that additional information may be obtained from Margaret Xi Can Yin, Dept. of Social Work and Social Administration, University of Hong Kong, Hong Kong SAR, People's Republic of China. Additional authors for this research include Yinan Ji, Anna Yan Zhang and Daniel Fu Keung Wong.

The publisher's contact information for the Australian & New Zealand Journal of Psychiatry is: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England.

Keywords for this news article include: Hong Kong, Psychiatry, Risk and Prevention, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CHWKNW0020210727eh7r000a2



#### Facebook cloud gaming finally make its way to iPhones and iPads via a web app

AnimationXpress Team
Distributed by Contify.com
368 words
26 July 2021
AnimationXpress
ATANIX
English
Copyright © 2021. AnimationXpress.com

Facebook has commenced its cloud gaming service for iOS users on iPhones and iPads via a web app. It is currently available in the US, Canada and Mexico, and is expected to reach Western and Central Europe by early 2022.

iOS users would be able to play simple web-based games like Pokémon Tower Battle and Solitare, among other games as well as, FB cloud gaming will enable users to access the games via a web app, which could be added to their home screens like a native app.

Facebook cloud gaming is offering free games which no other cloud gaming providers are offering currently.

Last October Facebook announced the official launch of Cloud gaming service official, with bunch of new games in the main app, browser, on the web for Android but not for Apple. According to The Verge Facebook's web games library, includes HTML5-based ones as well as advanced titles that could be streamed directly from the cloud. Players could also use the Facebook's custom payments system called Facebook Pay to do in-game purchases as well. Earlier Facebook made several attempts to bring cloud gaming for iOS users but Apple blocked it. Soon after Apple altered its policy frameworks to allow for cloud-based games only if they were submitted individually as apps to the App Store for review. "We've come to the same conclusion as others: web apps are the only option for streaming cloud games on iOS at the moment. As many have pointed out, Apple's policy to 'allow' cloud games on the App Store doesn't allow for much at all. Apple's requirement for each cloud game to have its own page, go through review, and appear in search listings defeats the purpose of cloud gaming. These roadblocks mean players are prevented from discovering new games, playing cross-device, and accessing high-quality games instantly in native iOS apps — even for those who aren't using the latest and most expensive devices," Facebook's vice president of gaming, Vivek Sharma, told The Verge in a statement.

Document ATANIX0020210726eh7q00004



#### Facebook Introduces Cloud Gaming For Apple Gadgets Via App: Verge

Anusuya Lahiri 114 words 23 July 2021 22:13 Benzinga.com BNZNGA English

Copyright 2021. Benzinga.com

- \* Facebook Inc(NASDAQ: FB) is launching its nascent cloud gaming service toApple Inc's(NASDAQ: <u>AAPL</u>) iPhones and iPads through a web app, the<u>Verge reports</u>.
- \* Users can add the app to their home screens.
- \* The app offers simple web games like Solitaire and match-threes and streams more graphically intensive titles like racing games.
- \* Interestingly, Apple prohibits third-party developers from steering their users to websites featuring purchasing mechanisms that Apple does not own.
- \* Price action:FB shares traded higher by 6.18% at \$372.90 on the last check Friday.
- © 2021 Benzinga.com. Benzinga does not provide investment advice. All rights reserved.

Document BNZNGA0020210723eh7n0015t



U.S. EDITION

Business News: Netflix Takes Aim at Gaming --- Streaming giant hired a Facebook executive to helm new unit focused on making videogames

By Sarah E. Needleman and Joe Flint 778 words 16 July 2021 The Wall Street Journal J B4

D4 -

English

Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved.

Netflix Inc. co-founder Reed Hastings has often said he sees videogames as the streaming company's biggest competitor for customers.

Now, he wants Netflix to make its own videogames, and the company has tapped an industry veteran to oversee its strategy.

The move speaks to Netflix's desire to attract new customers and keep users on its platform for longer periods, and it comes as the company is facing its first serious challenges to its streaming business. New entrants, including Walt Disney Co.'s Disney+ and WarnerMedia's HBO Max, are making inroads, and deep-pocketed rivals such as Apple Inc. and Amazon.com Inc. are spending aggressively on content as well.

Netflix is still the dominant streaming service with more than 200 million subscribers world-wide, but its growth has slowed this year as pandemic-related shutdowns end. Investors have been watching closely to see if Netflix will diversify its revenue sources beyond subscriptions to support its increasing content budget.

Videogames could be a lucrative solution. Global consumer spending on game software is projected to reach \$175.8 billion this year and exceed \$200 billion by 2023, according to Newzoo BV. Mobile games -- the kind Netflix is expected to focus on -- are on track to make up roughly half of this year's haul.

Success is far from guaranteed, analysts say, as larger incumbents have at times struggled in mobile gaming and it can be a challenge finding the right content that lends itself to becoming a videogame.

Netflix's videogaming strategy is still a work in progress, according to people familiar with the company's thinking. The immediate focus will be on making mobile games, these people said, and they won't include advertising, as is the case with Netflix's entertainment operations.

Netflix is planning to make the videogames available to play in its app without an additional fee, one of the people said. The company didn't comment on whether users would also be able to download those games.

"They'll probably lower their churn," said Benchmark analyst Mike Hickey. "You can burn through a TV series in a day, but you can constantly engage with a game for months to years."

The company this week said it hired Facebook Inc. executive Mike Verdu as vice president of game development. Mr. Verdu joined Facebook in May 2019 and was responsible for bringing games and other content to the company's Oculus-branded virtual-reality headsets.

Bloomberg first reported the hire of Mr. Verdu, who has also worked at Electronic Arts Inc. and Zynga Inc.

At Netflix, Mr. Verdu will work alongside other executives with game-industry experience, such as board member Ann Mather, who spent more than 15 years as a director for "Kim Kardashian: Hollywood" maker Glu Mobile, a company recently acquired by Electronic Arts.

Jessica Neal, before being named Netflix's talent chief in 2017, worked as chief people officer at mobile gaming company Scopely Inc. And Netflix finance chief Spencer Neumann, who joined the company in 2019, was poached from Activision Blizzard Inc., one of the world's largest videogame companies. Activision Blizzard is suing Netflix over the matter. Netflix declined to comment on the lawsuit Thursday.

Netflix has increasingly signaled interest in the videogame industry. The company's recent deals with creative talent including "Bridgerton" producer Shonda Rhimes feature language regarding the creation of videogames based on content.

In April, Chief Operating Officer Greg Peters said games are "going to be an important part" of the Netflix experience going forward. "We're trying to figure out what are all these different ways that we can increase those points of connection, we can deepen that fandom," he said on an earnings conference call.

Netflix has had modest success in mobile gaming through a licensing deal with the Texas studio BonusXP Inc. Its \$4.99 title, "Stranger Things 3: The Game," is based on a popular Netflix property and has amassed about \$315,000 in consumer spending in Apple's and Google's app stores since launching in August 2019, data from Sensor Tower Inc. show.

That game, however, isn't streamed online or housed within Netflix's mobile app. It is available for download only. For Netflix to stream multiple games from inside its mobile app on iPhones and iPads, it would need approval from App Store operator Apple, which has previously rejected efforts by Microsoft Corp. and Facebook to go down the same path.

License this article from Dow Jones Reprint Service

Document J000000020210716eh7g00010



GADGETS NEWS
TikTok becomes the first non-Facebook, non-gaming mobile app to hit 3 billion downloads worldwide

355 words
16 July 2021
The Times of India
TOI
English
(c) 2021 The Times of India Group

Video sharing app TikTok has become the first non-Facebook and non-gaming app to reach 3 billion downloads, as per a report by analytics firm Sensor Tower. Till now, only three other apps have been able to reach the milestone and all of them are owned by Facebook. So, now you know what apps they are: WhatsApp, Messenger and Instagram. Despite being banned in multiple countries, India included, the app's popularity does not seem to wane. The downloads did go down by 38% YoY from about 619 million in the first half of 2020, caused majorly due to removal from India's app stores, but consumer spending rose in that period by 73%. As for the stats on how well users are spending in the app, the report says that consumer spending in TikTok has now gone past \$2.5 billion globally. Tiktok saw its greatest quarter-over-quarter growth in consumer spending in Q2 2021 since Q2 2020, when it rose to \$534.5 million from \$384.7 million, a jump of 39%.

Since January 2014, the \$1 billion gross revenue mark has been touched by only 16 non-gaming apps, as per the report, five of which, including Tiktok, have sailed past the \$2.5 billion mark. These five apps are Tinder, Netflix, YouTube and Tencent Video.Tiktok was also the most downloaded and highest grossing non-gaming app in the world in the first half of 2021, with about 383 million first-time installs and an estimated \$919.2 million in consumer spending. This is accounting for both the Apple App Store and Google Play Store.As per the report, "first-time downloads climbed 2 percent Q/Q to 177.5 million in Q1 2021, and surged 16 percent Q/Q to 205.4 million Q2 2021, the most growth the app has seen since its record-breaking Q1 2020 when it accumulated more than 315 million installs, the most any app has seen in a single quarter."

For Reprint Rights: timescontent.com

Document TOI0000020210715eh7g0007w



#### Extra

#### Netflix hires Facebook exec amid gaming push; TikTok hits 3 billion downloads

Hassan Aftab 802 words 15 July 2021 SNL Financial Extra SNLFE English

Copyright © 2021 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

#### TOP NEWS IN TMT

- \* Netflix Inc. hired Facebook Inc.'s vice president of AR/VR content, Mike Verdu, as vice president of game development amid the streamer's plans to expand into the video gaming business, Bloomberg News reported. Verdu was in charge of collaborating with developers to bring games to Facebook's Oculus headsets. A source with knowledge of the matter reportedly said Netflix intends to provide video games on the platform within 2022.
- \* TikTok Inc. is the first non-Facebook mobile app to reach three billion downloads worldwide across Apple Inc.'s App Store and Google Play, according to data from analytics company SensorTower Inc. In addition, consumer spending in the Beijing Byte Dance Telecommunications Co. Ltd.-owned short video app exceeded \$2.5 billion worldwide.
- ➤ M&A Replay: Universal SPAC deal among leaders in June media, telecom M&A

Universal Music Group Inc. may not have been the largest media and telecommunications transactions listed in June, but between name recognition and its special purpose acquisition company buyer, it certainly grabbed the lion's share of attention.

➤ Discovery plans multiplatform feeds, augmented reality with Tokyo Games coverage

Discovery Inc. will present more than 3,500 hours of Olympic coverage across various linear, digital and streaming platforms to viewers in 50 nations and in 19 languages as it aims to reach the largest European audience ever for the Summer Games.

➤ TV rights holders net strong deliveries with Euro Cup, Copa America finals

ESPN (US) and Univision (US) networks scored 9.4 million viewers for the Euro title match, while the Spanish-language programmer and FOX Sports 1 tallied a combined 5.3 million watchers for the Copa America final.

#### **TECHNOLOGY**

- \* International Business Machines Corp. agreed to buy Madrid-based enterprise software and technical services company Bluetab Solutions SL for an undisclosed sum. The deal, which is likely to be completed in the third quarter, is expected to help IBM advance its hybrid cloud and AI strategy.
- \* The U.S. Consumer Product Safety Commission said it filed an administrative complaint against Amazon.com Inc. to compel the e-commerce company to recall potentially hazardous products sold on its platform. The products include about 400,000 hair dryers sold without the required immersion protection devices.
- \* In more Amazon news, the company mulled the option to develop an Alexa-powered wearable device for children that would allow them to access Amazon's kid-friendly content and communicate with parents, Bloomberg News reported, citing company documents. Amazon is also poised to launch a wearable The Walt Disney Co. gadget called the Magic Band in 2021.
- \* Microsoft Corp. unveiled Windows 365, a cloud service that will help businesses store information in the cloud rather than on the device. Expected to launch for businesses of all sizes on Aug. 2, Windows 365 is meant to help organizations scale for busy periods more efficiently and securely while mitigating logistical challenges.

#### INTERNET AND OTT

- \* U.K. Prime Minister Boris Johnson met with representatives of Facebook, Twitter Inc., TikTok Inc., Snap Inc. and Instagram LLC, and warned that the companies may be fined 10% of their global revenue over failure to remove hate content from their platforms, Reuters reported, citing the prime minister's statement to the parliament.
- \* Facebook plans to spend \$1 billion to reward content creators through 2022 in a bid to attract more content makers to its businesses, The Verge reported, citing a post by CEO Mark Zuckerberg. The reward program is reportedly available to creators on an invitation basis at the moment, but Facebook plans to expand the availability later in 2021.
- \* Twitter is removing Fleets, a feature that allows tweets on the platform to disappear, on Aug. 3. The social media company noted that it is "working on some new stuff."

#### FILM AND TV

- \* Gray Television Inc. agreed to sell WJRT-TV, its ABC (US) affiliate for the Flint-Saginaw, Mich., TV market, to Allen Media Group LLC for \$70 million in cash. Deal closure is expected to take place in the third or fourth quarter before the closure of Gray's pending acquisition of the Local Media Group Inc. division of Meredith Corp.
- \* Nexstar Media Group Inc. sued Comcast Cable Communications LLC over its alleged failure to pay carriage fees for WPIX New York, nexttv.com reported, citing a court filing. The broadcasting company reportedly sought unspecified damages, interest and additional costs owing to a violation of the retransmission agreement.

Click here for a summary of indexes on the MI platform.

The Daily Dose has an editorial deadline of 8:00 a.m. ET. Some external links may require a subscription. Links are current as of publication time, and we are not responsible if those links are unavailable later.

Document SNLFE00020210716eh7f000p6



#### Netflix eyes foray into video gaming, hires former Facebook exec as gaming VP

indiantelevision.com Team
Distributed by Contify.com
316 words
15 July 2021
Indiantelevision.com
ATINTV
English
Copyright © 2021. Indiantelevision.com

gaming.

New Delhi: Netflix is finally making the big move. Even as media conglomerates across the world slug it out to challenge its dominance in the streaming space, the US giant is gearing up for its next step. According to reports, Netflix is planning to expand beyond its traditional streaming business, and make its foray into video

On Wednesday, Netflix hired former Facebook, vice president, Mike Verdu, as VP of game development to lead its video games unit, reported Bloomberg. Verdu was previously Facebook's vice president in charge of working with developers to bring games and other content to Oculus virtual-reality headsets.

He has previously served as senior vice president of EA mobile, president of studios and chief creative officer at Kabam, CEO of TapZen, and chief executive officer for Zynga from 2009 to 2012. At Netflix, he will report to chief operating officer Greg Peters.

The idea is to offer video games on Netflix's streaming platform within the next year, Bloomberg quoted a person familiar with the situation. According to the report, the games will appear alongside current fare as a new programming genre - similar to what Netflix did with documentaries or stand-up specials.

The reports suggest Netflix will build its gaming team in the next few months, and it has "already started advertising for game-development related positions on its website".

The company now has 208 million paid subscribers across the globe, up from 204 million last quarter, and the latest announcement could be its boldest move yet. The announcement comes at a time, when Netflix is looking at ways to catalyse its growth especially in saturated markets like the US. Analysts contend that the move could also enable the company to justify its price hike in the coming few months.

Document ATINTV0020210715eh7f00031

COVID-19/SARS-CoV-2 News from Preprints; Prevalence and Comparisons of Alcohol, Candy, Energy Drink, Snack, Soda, and Restaurant Brand and Product Marketing on Twitch, FacebookGaming, and YouTubeGaming (Updated June 29, 2021)

363 words 13 July 2021 TB & Outbreaks Week TBWK 211 English

© Copyright 2021 TB & Outbreaks Week via NewsRx.com

2021 JUL 13 (NewsRx) -- By a News Reporter-Staff News Editor at TB & Outbreaks Week -- According to news reporting based on a preprint abstract, our journalists obtained the following quote sourced from osf.io:

"Objective: To compare and evaluate the prevalence of food and beverage marketing on the livestreaming platforms Twitch, Facebook Gaming, and YouTube Gaming, as well as examine growth of food and beverage marketing on these platforms over a 17-month period of data collection. Design: Cross-sectional data was analyzed across three livestreaming platforms and six food and beverage categories: alcohol, candy, energy drinks, snacks, sodas, and restaurants. Setting: Stream titles of livestreamed events as well as corresponding hours watched on Twitch, Facebook Gaming, and YouTube Gaming. Participants: None Results: There were significant differences between food and beverage brand mentions across all three studied platforms (p<0.05), as well as hours watched (p<0.05). Energy drinks dominated food and beverage brand mentions across platforms, followed by restaurants, soda, and snacks. All platforms demonstrated growth over the 17-month data collection period. Post-hoc analyses revealed that the COVID-19 pandemic impacted both immediate and sustained growth across all platforms, with the greatest impact observed on the Twitch platform.

"Conclusions: Food and beverage marketing as measured through stream titles is widely prevalent across the three most popular livestreaming platforms, particularly for energy drinks. Food marketing on these platforms experienced growth over the past 17-months which was accelerated substantially by the COVID-19 pandemic. Future work should assess the sustained impact this growth may have on marketing practices and eating behavior."

This preprint has not been peer-reviewed.

For more information on this research see: osf.io/preprints/socarxiv/gbc4f/

Keywords for this news article include: Food, Viral, Beverage, Virology, Marketing, Advertising, RNA Viruses, COVID-19/SARS-CoV-2 News from Preprints, Severe Acute Respiratory Syndrome Coronavirus 2.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document TBWK000020210713eh7d0000m



#### Facebook's Northwest lead envisions big future in virtual reality

Alex Halverson 1,146 words 7 July 2021 Puget Sound Business Journal PSBJ English

© 2021 American City Business Journals, Inc. All rights reserved.

Rajeev Rajan, vice president of engineering and head of Facebook for the Pacific Northwest, spent 23 years at Microsoft before his second act at the social media company. After four years, in February he earned a spot as an executive, succeeding the man who lured him to the company over lunch.

Within those four years, Rajan led teams for Facebook's Marketplace, which now competes with Craigslist. He also worked with engineering and video departments. The company's culture reminds him of Microsoft's early days.

Facebook is growing its presence in the Seattle area. The company bought REI's recently finished Bellevue headquarters, which will hold over 2,300 employees.

"We have so many open positions and are hiring big time. The Pacific Northwest is a great area for lots of talent, but there's a lot of competition," Rajan said. "Being able to hire the right talent and keep them for our growth is something I think about."

But Rajan, still an engineer at heart, is thrilled with Facebook's interest in exploring new tech like virtual reality. Facebook devotes almost a fifth of its employees to the company's Reality Labs division, according to reports on internal data.

What's the most exciting thing happening at Facebook? There's still so much to be done in tech, there's so many new things that we haven't even imagined. For example, AR and VR, we think, are going to bring a completely fundamental shift over the next decade, just like mobile phones did. It's a huge investment for us; we've had an Oculus office in Redmond, and we have a fairly big Facebook Reality Labs presence in the region now.

What's been your biggest accomplishment at Facebook? Reinventing myself. When you're at a company for 23 years, you get pretty defined in terms of how things work, how code gets written, how you ship software. One of the first things I had to do was unlearn everything I knew. When I joined Facebook, I was in boot camp with a group of people who were just joining from college. And it's like no matter what level you're at, or how many years you work, it's refreshing. I felt like I was in college again, I'm writing code, I'm fixing bugs, I'm learning how things work.

#### About Rajeev Rajan

- \* Title: Vice president of engineering and head of Facebook for the Pacific Northwest region
- \* Age: 51
- \* Education: Birla Institute of Technology and Science, Pilani; Ohio State University; University of Illinois Urbana-Champaign
- \* Career: Began at Microsoft in 1994, started at Facebook in 2017
- \* Family: He and his wife immigrated from India. They now have a son and daughter.
- \* Residence: Kirkland
- \* Facebook employees in the Pacific Northwest: 7,000

How did you get to the company? I was super happy and in a leadership position at Microsoft. But I knew somebody at Facebook who got me to come in for lunch to meet someone, Vijaye Raji, who was actually the Seattle site lead before me. I was very impressed with the chat, but also with him personally, and the energy I saw in the office. He (said), "Hey, why don't you fly to Menlo Park and meet a few leaders?" I was thinking, "Do I have a second inning? Should I try something different?" I flew to Menlo Park, I was very impressed

with the campus, the energy of the leaders, and things like that. I decided that, you know, why not? Like, let me give it a shot, and try something new. And the energy very much reminded me of Microsoft in the '90s.

How did you get to Microsoft in 1994? I was an intern on Windows 95. Those were the days that people would stand outside of Egghead Software at midnight to get copies of it. I was actually getting a Ph.D. at Urbana-Champaign in Illinois, and in a sort of happenstance, I came to Seattle for the internship. It was an amazing experience and I fell in love with the Pacific Northwest. So I decided to take a leave of absence from grad school for a year, but I never went back.

What's the biggest difference you've noticed in the industry between 1994 and 2021? I think we have gone through a generational shift. You have kids and young adults who grew up with phones, tablets and desktops as a given. I think it's changed the imagination of how people think about these devices and tech in general. It's touching every aspect of human life now, where previously it had a more niche impact.

What are some of the post-pandemic challenges your team anticipates? The most important thing is culture. It's something that really defines us and I think that's actually what got us through the pandemic. It's definitely going to be a new normal with flex work and things like that. But a lot of people who have joined Facebook have never seen a Facebook office, or even met any of their colleagues. Getting back into the office, getting some of our newer employees to see the office and understand the culture, getting to renew that culture, that's the most important challenge to me.

What about this industry keeps you up at night? There's so much good that technology has brought into the world, all the way from productivity to entertainment. And now, almost every aspect of our society is powered by tech. That's where I think it opens up avenues for misuse. The ransomware attacks on critical infrastructure is something that can happen to any big company or to a set of people. We want privacy for our users, but at the same time, how do we make sure attacks don't happen?

This interview has been edited for length and clarity.

A day in his life

- \* 6 a.m.: Wake up, make Indian Chai tea for my wife and myself, and chat together
- \* 7-8 a.m.: Organize thoughts and prioritize work for the day
- \* 8-9 a.m.: Work out on Peloton and get ready for the day
- \* 10 a.m noon: Meetings
- \* Noon 1 p.m.: Lunchtime and catch up with family (new routine during Covid-19 work from home)
- \* 1-5 p.m.: Work block, including meetings with a break for tea/snacks around 3 p.m.
- \* 5-8 p.m.: Go for a walk outside, have dinner with family
- \* 8-10 p.m.: Catch up with email or watch some TV or movies with my wife
- \* 10 p.m.: Go to sleep

Did you find this article useful? Why not <u>subscribe</u> to Puget Sound Business Journal (Seattle) for more articles?

Document PSBJ000020210707eh770002t



News - Digital

New 'Walking Dead' Game Debuts on FacebookGaming Ahead of Final Season on AMC

Todd Spangler 541 words 1 July 2021 Variety VARTY English

© 2021 Variety Media, LLC, a subsidiary of Penske Business Media. All rights reserved.

Grab a revolver or a barbed-wire-wrapped bat: A new game based on "The Walking Dead" has landed on Facebook.

"The Walking Dead Life" is a social game built for Facebook Gaming's Instant Games platform, letting fans experience the show's most memorable moments, collect virtual coins, and attack friends and foes alike.

The casual game, developed by game company Playco, is aimed at promoting the 11th and final season of the long-running zombie series, which premieres Sunday, Aug. 22 on AMC.

"The Walking Dead Life" is accessible on Facebook Gaming at this link, designed to be played on mobile devices. It soft-launched on the platform earlier this spring.

In the game, players encounter fan-favorite characters like Rick Grimes, Michonne Hawthorne and Daryl Dixon. They can level up to unlock Easter eggs at various scenes and locations, including the Atlanta hospital in Season 1, Hershel's farm and the infamous West Georgia Correctional Facility prison from seasons 3-4.

AMC picked Facebook Gaming as the exclusive platform for "The Walking Dead Life" because it allowed the cabler "to create a game that's incredibly social in nature," according to Clayton Neuman, VP of games for AMC Networks. He also pointed out that there's no download required — and that players get alerts directly through Facebook Messenger about game activity.

"'The Walking Dead Life' is all about getting your friends in on the action, whether that involves you attacking their base, teaming up on a squad to raid others or setting up a tournament to see which of your friends reigns supreme," Neuman added.

Undoubtedly, what also was a key consideration for AMC is Facebook's huge base of daily active users. For the first quarter of 2021, Facebook averages 195 million DAUs in the U.S./Canada (and 1.9 billion worldwide).

"As we focus on bringing high-quality games to Facebook Gaming, we're thrilled to work with Playco and AMC on 'The Walking Dead's' newest title," Jason Rubin, VP of play for Facebook Gaming, said in a statement.

Over the years, "The Walking Dead" comic books and TV show have spawned multiple game titles, including the four-season episodic adventure game from Telltale/Skybound Games.

Playco calls itself "the world's first instant gaming company." Its other titles include "EverWing" on Facebook, "Snake Squad" on Snap Games and the recently released "Trip Royale" on Line Messenger, launched in partnership with soccer star Keisuke Honda and his educational non-profit org NowDo. Last fall, Tokyo-based Playco closed \$100 million Series A round of funding co-led by Josh Buckley and Sequoia Capital Global Equities, with participation from Will Smith's Dreamers VC.

"We're thrilled to work with AMC and Facebook to bring 'The Walking Dead' to life through a unique and interactive instant game for the millions of fans of this hit show across the globe," Playco CEO Michael Carter said in a statement. "One of the best ways to connect with your friends is through the mutual love of entertainment like TV shows, and we hope this game brings friends closer together through play."

Document VARTY00020210701eh71000gu



#### Facebook partners with 'Assassin's Creed' maker in cloud-gaming push

204 words 1 July 2021 23:06 Reuters News LBA English

Copyright 2021 Thomson Reuters. All Rights Reserved.

July 1 (Reuters) - Facebook Inc has teamed up with French videogame maker Ubisoft Entertainment SA to bolster its cloud-gaming platform with popular titles such as "Assassin's Creed", the social media giant said on Thursday.

Facebook Gaming currently has more than 25 games including "Roller Coaster Tycoon Touch" by Atari, and "Lego Legacy Heroes Unboxed" and "Dragon Mania Legends" by Gameloft.

With the Ubisoft tie-up, Facebook said its users will now have access to titles including "Hungry Shark Evolution", "Hungry Dragon" and the blockbuster "Assassin's Creed" franchise.

The San Francisco-based company also said

https://www.facebook.com/fbgaminghome/blog/cloud-gaming-momentum its cloud-streamed games are now available to more than 98% of the population in the United States, adding that the roll-out has begun in Canada and Mexico, and will reach Western and Central Europe by early next year.

In October, Facebook had launched a free-to-play cloud gaming feature on its social media platform, allowing users to stream and play games without downloading them. (<a href="https://reut.rs/3qJifvx">https://reut.rs/3qJifvx</a>) (Reporting by Tiyashi Datta in Bengaluru; Editing by Ramakrishnan M.)

Released: 2021-7-1T18:36:12.000Z

Document LBA0000020210701eh7103n69



#### 12:07 EDT Facebook announces 98% U.S. coverage of cloud gaming platformFacebook...

135 words 1 July 2021 Theflyonthewall.com FLYWAL English

(c) 2021. Theflyonthewall.com. All Rights Reserved.

12:07 EDT Facebook announces 98% U.S. coverage of cloud gaming platformFacebook said its website: "Last October, we announced the closed beta of our cloud gaming platform to expand the library of mobile games on Facebook, playable instantly, with no installs, wherever and whenever players want. We started with launching a handful of cloud-streamed games on Android and web in select US regions. We've now scaled our infrastructure significantly, and today we're announcing coverage to over 98% of people in the mainland United States. We're on track to hit 100% by fall of this year. We're also beginning our roll out in Canada and Mexico, and will reach Western and Central Europe by early 2022."

#### Reference Link

Document FLYWAL0020210701eh7100y11



Clinical Monitoring and Computing; Studies from Brugmann University Hospital Describe New Findings in Clinical Monitoring and Computing (The Use of Virtual Reality In Children Undergoing Vascular Access Procedures: a Systematic Review and Meta-analysis)

515 words
25 June 2021
Health & Medicine Week
HAMW
6310
English
© Copyright 2021 Health & Medicine Week via NewsRx.com

2021 JUL 2 (NewsRx) -- By a News Reporter-Staff News Editor at Health & Medicine Week -- Fresh data on Clinical Monitoring and Computing are presented in a new report. According to news originating from Brussels, Belgium, by NewsRx correspondents, research stated, "Venous access procedures are painful and feared by children and their parents. Virtual reality has become increasingly prominent and has been shown to be effective in various procedures."

Financial support for this research came from department of anaesthesia of Brugmann University Hospital.

Our news journalists obtained a quote from the research from Brugmann University Hospital, "The aim of this meta-analysis was to examine virtual reality's effect on pain and fear in children from 4 to 12 in the context of vascular access. From the 20th to the 26th December 2020, we searched Sciencedirect, Springerlink, CENTRAL, Pubmed and PMC. Studies using virtual reality versus a control in vascular access for children were included in a meta-analysis to evaluate the effect of virtual reality regarding pain as a primary and fear/anxiety as a secondary endpoint during the procedures. The Jadad scale and Delphi List were used to assess study quality. 20,894 citations were identified, 9 met our inclusion criteria. One publication was conducted in two different situations and was thus considered as 2 studies. Compared to standard of care, virtual reality significantly reduced pain (10 studies, 930 participants: standardized mean difference [SMD] 2.54, 95%CI 0.14-4.93, p = 0.038), and fear/anxiety (6 studies, 648 participants: SMD 0.89, 95%CI 0.16-1.63, p = 0.017). For both parameters, we found significant heterogeneity between studies. This is the first meta-analysis to look at the use virtual reality in young children undergoing vascular access procedures, providing weak to moderate evidence for its use. Although large effect sizes provide evidence for a positive effect of virtual reality in reducing pain and fear, there is significant heterogeneity between studies."

According to the news editors, the research concluded: "More research with larger groups and age stratification is required."

This research has been peer-reviewed.

For more information on this research see: The Use of Virtual Reality In Children Undergoing Vascular Access Procedures: a Systematic Review and Meta-analysis. Journal of Clinical Monitoring and Computing, 2021. Journal of Clinical Monitoring and Computing can be contacted at: Springer Heidelberg, Tiergartenstrasse 17, D-69121 Heidelberg, Germany. (Springer - <a href="https://www.springer.com">www.springer.com</a>; Journal of Clinical Monitoring and Computing - <a href="https://www.springerlink.com/content/1387-1307/">www.springerlink.com/content/1387-1307/</a>)

The news correspondents report that additional information may be obtained from D. Schmartz, Brugmann University Hospital, Brussels, Belgium. Additional authors for this research include P. Van Der Linden and J-F. Fils.

Keywords for this news article include: Brussels, Belgium, Europe, Clinical Monitoring and Computing, Brugmann University Hospital.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document HAMW000020210625eh6p000wf

# Virtual Reality (VR) in Online Educations Market Significant Demand Foreseen by 2026: Nearpod, TimeLooper, Oculus VR (Facebook)

811 words 24 June 2021 iCrowdNewswire ICROWDN English

© Copyright iCrowdNewswire LLC 2021. All rights reserved

Looking for our most recent market research report on this topic? Click here

HTF MI started a new business research with title Global Virtual Reality (VR) in Online Educations Market Study Forecast till 2027 . This Global Virtual Reality (VR) in Online Educations market report brings data for the estimated year 2021 and forecasted till 2027 in terms of both, value (US\$ MN) and volume (MT). The report also consists of detailed assessment macroeconomic factors, and a market outlook of the Virtual Reality (VR) in Online Educations market. The study is conducted by applying both top-down and bottom-up approaches and further iterative methods used to validate and size market estimation and trends of the Global Virtual Reality (VR) in Online Educations market. Additionally to compliment insights EXIM data, consumption, supply and demand Figures, raw price analysis, market revenue and gross margins. Some of the companies listed in the research study are Avantis Systems, ELearning Studios, Google, Enlighten, Immerse, LearnBrite, Lenovo, Nearpod, TimeLooper, Oculus VR (Facebook), Skills2Learn, ThingLink, VIVED, VR Education Holdings, ZSpace, SQLearn & Tesseract Learning etc.

Acquire Sample Report + All Related Tables & Graphs of Global Virtual Reality (VR) in Online Educations Market Study Now

If you are involved in the Virtual Reality (VR) in Online Educations industry or intend to be, then this study will provide you complete viewpoint. It's vital you keep your market knowledge up to date segmented by Applications [Academic Research, Corporate Training, School Education & Other], Product Types such as [Platform and Software & Solutions and Services] and some major players in the industry.

Global Virtual Reality (VR) in Online Educations Competitive Analysis :

The Company Coverage is aiming innovation to increase efficiency and product life. The long-term growth opportunities available in the sector are captured by ensuring constant process improvements and economic flexibility to spend in the optimal schemes. Company profile section of players such as Avantis Systems, ELearning Studios, Google, Enlighten, Immerse, LearnBrite, Lenovo, Nearpod, TimeLooper, Oculus VR (Facebook), Skills2Learn, ThingLink, VIVED, VR Education Holdings, ZSpace, SQLearn & Tesseract Learning etc. includes its basic information like company legal name, website, headquarters, subsidiaries, its market position, history and 5 closest competitors by Market capitalization / revenue along with contact information.

Resource and Consumption – In extension with sales, this segment studies Resource and consumption for the Virtual Reality (VR) in Online Educations Market. Import export data is also provided by region if applicable.

Free Customization on the basis of client requirements on Immediate purchase:

- 1- Free country level breakdown any 5 countries of your interest.
- 2- Competitive breakdown of segment revenue by market players.

Enquire for customization in Global Virtual Reality (VR) in Online Educations Market Report @ <a href="https://www.htfmarketreport.com/enquiry-before-buy/3136308-global-virtual-reality-47">https://www.htfmarketreport.com/enquiry-before-buy/3136308-global-virtual-reality-47</a>

Important years taken into consideration in the study are as follows:

Historical year - 2016-2020

Base year - 2021

Forecast period\*\* – 2021 to 2027 [\*\* unless otherwise stated]

Focus on segments and sub-section of the Market are illuminated below:

Geographical Analysis: Americas, United States, Canada, Mexico, Brazil, APAC, China, Japan, Korea, Southeast Asia, India, Australia, Europe, Germany, France, UK, Italy, Russia, Middle East & Africa, Egypt, South Africa, Israel, Turkey & GCC Countries, Rest of World etc

On the Basis of Product Types of Virtual Reality (VR) in Online Educations Market: , Segmentation by type: breakdown data from 2016 to 2021 in Section 2.3; and forecast to 2026 in section 10.7., Platform and Software & Solutions and Services

The Study Explores the Key Applications/End-Users of Virtual Reality (VR) in Online Educations Market: Academic Research, Corporate Training, School Education & Other

Buy research study Virtual Reality (VR) in Online Educations at Discounted Pricing @: <a href="https://www.htfmarketreport.com/buy-now?format=1&report=3136308">https://www.htfmarketreport.com/buy-now?format=1&report=3136308</a>

Most important Highlights of TOC:

- 1 Introduction of Virtual Reality (VR) in Online EducationsMarket
- 1.1 Overview of the Market
- 1.2 Scope of Report
- 2 Exclusive Summary
- 3 Research Methodology
- 3.1 Primary Interviews
- 3.2 Data Mining
- 3.3 Validation
- 3.4 List of Statistics
- 4 Virtual Reality (VR) in Online Educations Market Segment & Geographic Analysis [2016 -2027]
- 4.1 By Type
- 4.2 By Application
- 4.3 By Region / Country
- 5 Virtual Reality (VR) in Online Educations Market Outlook
- 5.1 Overview
- 5.2 Market Dynamics
- 5.2.1 Opportunities
- 5.2.2 Restraints
- 5.2.3 Drivers
- 5.3 Five Force Model
- 5.4 Value Chain Analysis
- 6 Virtual Reality (VR) in Online Educations Market Competitive Landscape
- 6.1 Overview
- 6.2 Key Development Policies
- 6.3 Company Market Standing

Read Detailed Index of Virtual Reality (VR) in Online Educations Market report @: <a href="https://www.htfmarketreport.com/reports/3136308-global-virtual-reality-47">https://www.htfmarketreport.com/reports/3136308-global-virtual-reality-47</a>

Thanks for reading this article; you can also get individual chapter wise section or region wise report version like LATAM, North America, Europe or Southeast Asia.

Page 80 of 148 © 2022 Factiva, Inc. All rights reserved.

Document ICROWDN020210624eh6o000n7



Tech stocks

Virtual reality: advertising's next horizon, and how Facebook aims to dominate it

Chris Carter 970 words 23 June 2021 MoneyWeek MONWE English

© 2021. Dennis Publishing LTD. All Rights reserved.

Billboards by the side of the road, adverts on the bus, on the Tube, at the bus stop, at the airport, on the radio, on the television, in your favourite financial magazine – we're so used to seeing ads that we barely even notice them. I wonder how many adverts we pass every day and how many we remember seeing or hearing.

Either way, I suspect advertisers aren't too worried – so long as that little seed is planted in the back of your mind that makes you sit up at some point and say, "You know what, I could really do with an ice-cold Heineken".

The real world is absolutely saturated with advertising. Should the virtual world be any different?

Facebook wants to dominate the virtual world

The answer to that question is being hammered out right now. Earlier this week, games developer Resolution Games pulled out of a Facebook-driven initiative to introduce in-game advertising into the virtual realm via its game Blaston.

Blaston costs £8, and came out last October. It's played on the Oculus Quest and Quest 2 virtual reality (VR) headsets. But players didn't take well to the news that they may soon be staring at in-game billboards within a game that they had already paid for. Some began posting one-star reviews, which to a company in a nascent technology, as VR still very much is, was too much to swallow. So Resolution Games has backed off, at least for now.

But in-game advertising is not going to go away. Facebook-owned <u>Oculus announced</u> in a blog post last week that it was "exploring new ways for developers to generate revenue... a key part of ensuring we're creating a self-sustaining platform that can support a variety of business models that unlock new types of content and audiences". Note the implication that game prices alone are not enough.

Carve Snowboarding, a game with a string of mostly favourable reviews, cost £15 when it was released barely three weeks ago, compared to upwards of £50 for a new Xbox or Playstation game. The Quest 2 headset itself cost £299 when it hit the shelves last October, compared to £399 for the first Quest when new in May 2019.

Facebook CEO Mark Zuckerberg says the company is "investing billions and billions and billions of dollars to build something that we think will contribute to a compelling future five to ten years from now".

It all suggests that Facebook is going all-out to win market share at this early stage in the development of virtual reality, even if that comes at a cost to short-term profits. But just marvel at the long-term – possibly very long-term – potential for profits.

Granted, I am a VR fan. But just think what the virtual world real estate could be worth if VR becomes established. Just think of all those virtual roadside billboards! In the Amazon Video VR app, for example, while you are choosing what to watch, you are standing in a virtual cardboard town, complete with cardboard cars and vans (a play on the ubiquitous Amazon parcel). Look up and you see virtual billboards which display whatever new release Amazon is plugging.

And advertising in video games certainly isn't new. EA Sports has been displaying sponsor logos in its games, such as its phenomenally successful Fifa series, for years, to the extent it is a fully integrated part of the business model. "Fifa's advertising platform amplifies the official partners of each included league and club to offset licensing costs", as John McCarthy points out on <a href="https://example.com/The Drum">The Drum</a>.

Meanwhile, Sega and Sports Interactive's Football Manager series goes one step further in "actively selling native in-stadium ads through London startup Bidstack", says McCarthy. "Its bidding platform, created to Page 82 of 148 © 2022 Factiva, Inc. All rights reserved.

service digital out-of-home formats, now serves programmatic, native ads to billboards, panels and hoardings on console and PC games." Or as Bidstack founder James Draper put it, "We are the ClearChannel of video games".

The business model is still being hammered out – but if VR takes off, ads will too

In this case, Blaston has probably fallen foul of gamers accustomed mostly to either playing free of charge but being served ads or opportunities to buy add-ons, or paying a single fee upfront for the entire game, ad-free. As a result, the controversy is unlikely to prevent ads being an issue in future games – Resolution already plans to test whether users of its free-to-play Bait! fishing game would be more amenable to being confronted with ads.

The main conundrum Facebook faces is whether to raise prices for its headsets and games, or hope audiences come around in time. I suspect it will be holding out for the latter, particularly as VR still needs to reach critical mass and overcome the general scepticism that it is "the tech of the future —and always will be".

No doubt VR users will worry about privacy and what happens to their data. Facebook says that, while it will look at whether users choose to click on the ads or hide them, it would not use users' personal data or data from user-to-user conversations to target ads. In any case, if VR does take off – which may depend on a "killer app" – then I suspect attitudes will soften.

You might argue that there is something somehow insidious about advertising in such an immersive space. But is it really any more insidious than, say, advertising in a Hollywood blockbuster? After all, in Skyfall, James Bond swapped his martini for an ice-cold Heineken when the money men came calling. Mmm, Heineken.

Document MONWE00020210623eh6n0005l



#### Abrupt Exit Of First VR Gaming Partner Lands Facebook's Huge Investments In A Soup: FT

Anusuya Lahiri 248 words 22 June 2021 18:52 Benzinga.com BNZNGA English

Copyright 2021. Benzinga.com

- \* Facebook Inc's(NASDAQ: FB) first advertising partner in its virtual reality (VR) headset exited in less than a week after a backlash from the gaming community, the Financial Times reports.
- \* <u>Last Wednesday.</u>Facebook announced its plans to start testing advertising in its VR gaming headset Oculus, with commercials running in the shooting game Blaston and a couple of other developers.
- \* But Blaston, a title from Resolution Games, <u>discarded the plan</u>on Monday, following a flood of user complaints.
- \* Multiple users posted one-star reviews of Blaston in protest against the proposed test with Facebook for suddenly bombarding paid-for game users with ads.
- \* The headset wearers would have controls to hide particular ads or hide ads from a specific advertiser, Facebook stated last week.
- \* Facebook announced in May that it had started testing advertisements in the Oculus mobile app.
- \* Facebook has invested billions of dollars with 10,000 people working across virtual and augmented reality, CEO Mark Zuckerberg stated at the VivaTech conference last week.
- \* Facebook's AR competitors include Apple Inc(NASDAQ: AAPL) and Snap Inc(NYSE: SNAP).
- \* Later on Monday, Blastontweeted that Resolution Games was exploring the feasibility to move the small, temporary test to its free fish-catching game Bait.
- \* Price action:FB shares traded higher by 0.12% at \$332.69 in the premarket session on the last check Tuesday.
- © 2021 Benzinga.com. Benzinga does not provide investment advice. All rights reserved.

Document BNZNGA0020210622eh6m000uv



CE Noticias Financieras English

Portaltic.-The first third-party video game with Facebookvirtual reality ads decides to remove them

343 words
22 June 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

MADRID, 22 Jun. (Portaltic/EP) The study Resolution Games has announced on Monday that it is abandoning the idea of including ads within its video game Blaston after tests conducted by Facebook to include for the first time ads in a virtual reality (VR) video game from an external studio, although they plan to study the feasibility of the tests in its free title 'Bait!'. Facebook had announced last Wednesday the start of tests to insert advertising within the gaming experience with Oculus VR glasses through the game of Resolution Games, but the studio said tuesday on Twitter that it is abandoning the project after hearing criticism from users. "After hearing your feedback, we realize that Blaston is not ideal for this type of ad testing. Therefore, we no longer plan to implement the test," they said in the tweet. The game's official account has added that, despite this, it still plans to test the viability of ads in its free game Bait! temporarily in the future.

In addition, the CEO of Resolution Games, has indicated in a statement collected by The Verge that the company wants to make sure that, "if ads in VR become inevitable as it happens on other platforms", they want to make sure they "get it right". This test opened the door to the inclusion of ads in the VR gaming experience in a video game that is not owned by Facebook for the first time, but the company has not yet given explanations about the future of the project following the resignation of Resolution Games. In the article announcing the tests, Facebook gave explanations regarding privacy, noting that the inclusion of ads did not change its policy on the matter. It also noted that the only new information it would collect would be whether and how a user had interacted with an ad, and that it would not use locally stored information, movement information or conversational information.

Document NFINCE0020210622eh6m003gd



# Facebook Technologies LLC; Patent Issued for Use of folded optics to reduce volume in a virtual-reality system (USPTO 11022784)

1,878 words 21 June 2021 Journal of Engineering JOENG 18749 English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 JUN 21 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- A patent by the inventors Geng, Ying (Bellevue, WA, US), Gollier, Jacques (Redmond, WA, US), Peng, Fenglin (Kirkland, WA, US), Sulai, Yusufu Njoni Bamaxam (Bothell, WA, US), Wheelwright, Brian (Sammamish, WA, US), filed on August 17, 2018, was published online on June 1, 2021, according to news reporting originating from Alexandria, Virginia, by VerticalNews correspondents.

Patent number 11022784 is assigned to Facebook Technologies LLC (Menlo Park, California, United States).

The following quote was obtained by the news editors from the background information supplied by the inventors: "This disclosure relates generally to near-eye-display systems, and more specifically to displays with a small form factor, a large field of view, and/or a large eye box. Near-eye, light-field displays project images directly into a user's eye, encompassing both near-eye displays and electronic viewfinders. Conventional near-eye displays generally have a display element that generates image light that passes through one or more lenses before reaching a user's eyes. Additionally, near-eye displays in virtual-reality (VR) systems and/or augmented-reality (AR) systems have design criteria to be compact, be light weight, and provide two-dimensional expansion with a large eye box and a wide field-of-view (FOV). In typical near-eye displays, a limit for the FOV is based on satisfying two physical conditions: (1) an occurrence of total internal reflection of image light coupled into a waveguide, and (2) an existence of a first-order diffraction caused by a diffraction grating. Conventional methods used to satisfy the above two physical conditions rely on heavy and expensive components. Further, designing a conventional near-eye display with two-dimensional expansion involving two different output grating elements that are spatially separated often results in a large form factor. Accordingly, it is challenging to design near-eye displays using conventional methods to achieve a small form factor, a large FOV, and/or a large eye box."

In addition to the background information obtained for this patent, VerticalNews journalists also obtained the inventors' summary information for this patent: "This disclosure relates generally to a lens for a virtual-reality (VR) display. Pancake lenses have been used to provide focusing power by folding an optical path. In this disclosure, a folded optical path is used to reduce a length of an optical path for a VR system. A compromise between image quality and weight typically leads to lens systems with few elements that collectively have a long focal length and hence have a long back focal distance (BFD). The back focal distance is usually full of air and can significantly increase a volume and/or bulkiness of a head-mounted display (HMD).

"The VR system can comprise a display, a lens, a partial reflector, a quarter-wave plate, and a reflective polarizer. The partial reflector, quarter-wave plate, and the reflective polarizer are used to fold light. Light is transmitted from the display, through the partial reflector (e.g., a 50/50 mirror), through the quarter-wave plate, reflected by the reflective polarizer, transmitted through the quarter-wave plate, reflected by the partial reflector, transmitted through the quarter-wave plate, and transmitted through the reflective polarizer. Light is folded on axis (e.g., with reflector planes orthogonal to the optical axis). The lens focuses light. In some embodiments, folding optics have little to no focusing power. The folding optics are used in conjunction with the lens system instead of using a folded-optics lens to replace the lens system. Though light is not significantly focused using the folding optics, light follows a folded optical path. Since light is folded, the back focal distance (BFD) is reduced (e.g., up to 3 times). Because the folding optics are not used to focus light, the elements used for the folding optics can be applied to flat surfaces, which are easier to manufacture than applying elements used for the folding optics to curved surfaces.

"The figures depict embodiments of the present disclosure for purposes of illustration only. One skilled in the art will readily recognize from the following description that alternative embodiments of the structures and methods illustrated may be employed without departing from the principles, or benefits touted, of this disclosure.

"In the appended figures, similar components and/or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a dash and a Page 86 of 148 © 2022 Factiva, Inc. All rights reserved.

second label that distinguishes among the similar components. If only the first reference label is used in the specification, the description is applicable to any one of the similar components having the same first reference label irrespective of the second reference label."

The claims supplied by the inventors are:

- "1. A system comprising: an optical display; a lens system; a partial reflector between the lens system and the optical display; a first quarter-wave plate between the lens system and the partial reflector; a first reflective polarizer between the lens system and the first quarter-wave plate, wherein a majority of focusing power of the system comes from the lens system; a second reflective polarizer, wherein: the partial reflector is between the first reflective polarizer and the second reflective polarizer; the first reflective polarizer has a transmission axis in a first orientation; the second reflective polarizer has a transmission axis in a second orientation; and the first orientation is orthogonal to the second orientation; and a second quarter-wave plate, wherein the second quarter-wave plate is between the partial reflector and the second reflective polarizer.
- "2. The system of claim 1, wherein: the first quarter-wave plate is on a flat surface; and the first reflective polarizer is on a flat surface.
- "3. The system of claim 1, wherein the partial reflector is on an aspherical surface.
- "4. The system of claim 1, wherein the partial reflector is on a flat surface.
- "5. The system of claim 1, wherein the partial reflector has a transmission of 50%, +/-5%.
- "6. The system of claim 1, wherein the partial reflector, the first quarter-wave plate, and the first reflective polarizer provide an on-axis fold of light from the optical display.
- "7. The system of claim 1, wherein the first reflective polarizer and the second reflective polarizer are equidistant from the partial reflector.
- "8. The system of claim 1, wherein: the first reflective polarizer transmits linearly-polarized light of a first orientation and reflects linearly-polarized light of a second orientation; and the first orientation is orthogonal to the second orientation.
- "9. A system comprising: an optical display; a partial reflector; a first quarter-wave plate, wherein the partial reflector is between the optical display and the first quarter-wave plate; a first reflective polarizer, wherein the first quarter-wave plate is between the first reflective polarizer and the partial reflector; a second quarter-wave plate, wherein the second quarter-wave plate is between the optical display and the partial reflector; and a second reflective polarizer, wherein the second reflective polarizer is between the optical display and the second quarter-wave plate, wherein the first reflective polarizer and the second reflective polarizer are equidistant from the partial reflector.
- "10. The system of claim 9, further comprising a lens system for focusing light from the optical display to an eye box.
- "11. The system of claim 9, wherein: the first quarter-wave plate has a fast axis in a first orientation; the second quarter-wave plate has a fast axis in a second orientation; and the first orientation is offset from the second orientation by 90 degrees, +/-5 degrees.
- "12. The system of claim 9, wherein: the first reflective polarizer has a transmission axis in a first orientation; the second reflective polarizer has a transmission axis in a second orientation; and the first orientation is offset from the second orientation by 90 degrees, +/-5 degrees.
- "13. The system of claim 9, wherein: the first quarter-wave plate is on a flat surface; and the first reflective polarizer is on a flat surface.
- "14. The system of claim 9, wherein the partial reflector has a transmission of 50%, +/-5%.
- "15. A method comprising: emitting light from a display to a partial reflector; transmitting a first portion of light from the partial reflector through a first quarter-wave plate to a first reflective polarizer; reflecting the first portion of light at the first reflective polarizer back through the first quarter-wave plate to the partial reflector; reflecting the first portion of light at the partial reflector back toward the first reflective polarizer; passing the first portion of light through the first reflective polarizer to a lens system; using the lens system to focus the first portion of light to an eye box; reflecting a second portion of light from the partial reflector through a second quarter-wave plate to a second reflective polarizer, wherein the first reflective polarizer and the second reflective polarizer are equidistant from the partial reflector; reflecting the second portion of light at the second reflective polarizer back through the second quarter-wave plate toward the partial reflector; transmitting the second portion of light through the partial reflector, through the first quarter-wave plate, and

to the first reflective polarizer; passing the second portion of light through the first reflective polarizer to the lens system; and using the lens system to focus the second portion of light to the eye box.

- "16. The method claim 15, wherein: the first reflective polarizer has a transmission axis in a first orientation; the second reflective polarizer has a transmission axis in a second orientation; and the first orientation is offset from the second orientation by 90 degrees, +/-5 degrees.
- "17. The method of claim 15, wherein: the first quarter-wave plate has a fast axis in a first orientation; the second quarter-wave plate has a fast axis in a second orientation; and the first orientation is offset from the second orientation by 90 degrees, +/-5 degrees.
- "18. The method of claim 15, further comprising transmitting light from the display through the second quarter-wave plate before transmitting light from the display to the partial reflector.
- "19. The method of claim 15, wherein: the first quarter-wave plate is on a flat surface; and the first reflective polarizer is on a flat surface.
- "20. The method of claim 15, wherein the partial reflector is on a surface used to correct for field-curvature."

URL and more information on this patent, see: Geng, Ying. Use of folded optics to reduce volume in a virtual-reality system. U.S. Patent Number 11022784, filed August 17, 2018, and published online on June 1, 2021. Patent URL:

http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=11022784.PN.&OS=PN/11022784RS=PN/11022784

Keywords for this news article include: Business, Facebook Technologies LLC.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOENG00020210621eh6l002dk



CE Noticias Financieras English

Facebook tests ads on virtual reality headsets

141 words
21 June 2021
CE NoticiasFinancieras
NFINCE
English
Copyright © Content Engine LLC

Facebook began displaying ads on its Oculus virtual reality headsets, although the platform's founder, Mark Zuckerberg, said it would never happen. In what the social network described as an experiment, the ads will begin to appear in a game called Balston, with other developers releasing similar content, according to the BBC.

The social network wants to hear feedback from users before launching virtual reality ads more broadly. Users will be able to hide specific ads or from a particular advertiser, and Facebook has ensured that their privacy policy will remain the same.

With the novelty, Facebook will get new information about its users. You can tell, for example, if you interacted with an ad, and if so, whether you clicked on the ad for more information or hid the ad.

Document NFINCE0020210621eh6l006yn



### Technology Facebook to start testing ads in virtual reality headsets

Sowmya Ramasubramanian 268 words 18 June 2021 The Hindu Online THINDO English © 2021 THG Publishing Pvt. Ltd.

Technology

In February last year, Facebook said developers on the platform are seeing "meaningful revenue growth" on the Quest platform, with over 60 titles generating revenue in millions.

(Subscribe to our Today's Cache newsletter for a quick snapshot of top 5 tech stories. Click <a href="here">here</a> to subscribe for free.)

Facebook Inc said that it will start testing advertisements in its Oculus virtual reality headsets, a move that could benefit the tech giant that earns over 97% of its revenue from ads.

The California-based company will test with a few apps in the beginning, and will make the ads broadly available across the Oculus platform and mobile app after incorporating feedback from developers, Facebook said in a statement. The experiment will begin with 'Blaston' from Resolution Games and few other developers that will begin rolling out over the coming weeks.

Also Read | Facebook aims to prove VR's popularity more than virtual

Facebook last month started testing ads in the Oculus mobile app. Earlier this week, Facebook's <u>Instagram said its has rolled out ads in Reels globally</u>.

Facebook says it will not use information processed and stored locally in the headset to target ads, nor will it use movement data. The company will not use content of conversations with people on apps like Messenger or the user's voice interactions to target ads, it said in the statement.

In February last year, Facebook said developers on the platform are seeing "meaningful revenue growth" on the Quest platform, with over 60 titles generating revenue in millions.

Document THINDO0020210618eh6i000b9

Virtual Reality; Investigators at University of Southern Alabama Detail Findings in <mark>Virtual Reality</mark> (A Meta-analysis of the Virtual Reality Problem: Unequal Effects of Virtual Reality Sickness Across Individual Differences)

436 words 17 June 2021 Women's Health Weekly WHWK 2778 English

© Copyright 2021 Women's Health Weekly via NewsRx.com

2021 JUN 24 (NewsRx) -- By a News Reporter-Staff News Editor at Women's Health Weekly -- Current study results on Virtual Reality have been published. According to news reporting originating from Mobile, Alabama, by NewsRx correspondents, research stated, "Practical applications of virtual reality (VR), defined as a three-dimensional digital representation of a real or imagined space, have become increasingly popular and are now applied in workplace training, physical rehabilitation, psychological therapy, and many other settings. Feelings akin to motion sickness, called VR sickness, can arise from interacting with VR programs, and researchers have shown that certain aspects of the user, such as gender and age, may predict the occurrence of VR sickness."

Our news editors obtained a quote from the research from the University of Southern Alabama, "The unequal effects of VR sickness are a dire concern and the application of VR is unfair to certain users if they are prone to sickness. For instance, a workplace VR training program could result in disparate treatment if women experience more VR sickness than men. To investigate this notion, we perform a meta-analysis on the relationship between VR sickness and a wide array of potential antecedents. The results demonstrate that motion sickness susceptibility, gender, real-world experience, technological experience, possessing a neurological disorder, and possessing a relevant phobia all significantly relate to VR sickness; however, no moderating effects produced recurrent significant results."

According to the news editors, the research concluded: "These results were partially explained by the current dominant framework for VR sickness, postural instability theory, but some findings were not predicted by the theory."

This research has been peer-reviewed.

For more information on this research see: A Meta-analysis of the Virtual Reality Problem: Unequal Effects of Virtual Reality Sickness Across Individual Differences. Virtual Reality, 2021. Virtual Reality can be contacted at: Springer London Ltd, 236 Grays Inn Rd, 6TH Floor, London WC1X 8HL, England. (Springer - <a href="https://www.springer.com">www.springer.com</a>; Virtual Reality - <a href="https://www.springerlink.com/content/1359-4338/">www.springerlink.com/content/1359-4338/</a>)

The news editors report that additional information may be obtained by contacting Matt C. Howard, University of Southern Alabama, Mitchell College of Business, Mobile, AL 36688, United States.

Keywords for this news article include: Mobile, Alabama, United States, North and Central America, Virtual Reality, Gender Health, Gender and Health, Health and Medicine, Women's Health, University of Southern Alabama.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document WHWK000020210617eh6h00023



Lifestyle, Tech

Facebook brings ads to virtual reality headsets -even though Oculus founder said it would never happen

Adam Smith 549 words 17 June 2021 14:39 Independent Online INDOP English

© 2021. Independent Digital News and Media Ltd. All Rights Reserved

Oculus will not 'flash ads at you' and the company doesn't 'have to compromise on anything', Palmer Luckey said when Facebook bought the company

<u>Facebook</u> is bringing <u>adverts</u> to its <u>Oculus</u> virtual reality headsets, seven years after the original founder said that it would never do so.

The social media giant claims that the reason it needs to include adverts is to "advance the consumer experience" and help developers generate revenue, and so is currently testing the addition of adverts in certain <u>VR</u> games, it said in a <u>blog post</u>.

Facebook has been continually pushing virtual reality as the future of both its own services and of technology in general, because it has the opportunity to make vast amounts of profit through the digital 'metaverse' where computer-generated goods can be bought and sold – much like in-app purchases in video games – with Facebook taking a cut.

Currently, however, Facebook is relatively bound by <u>Apple and Google's influence on its apps on mobile</u> – as demonstrated by the controversy over <u>Apple blocking its access to ad tracking features in iOS 14</u>, and Facebook's attacks on the smartphone manufacturer in response.

Facebook claims that the adverts will be "high-quality and relevant", with the company gathering information about how users interacted with adverts such as clickthroughs or whether the user hid the ad.

"This is a new innovation in the advertising industry, and it's still early days", Facebook said, adding that it "excited by the opportunity to open up new revenue streams".

This advertisement update is a considerable difference from the future sold to users by Palmer Luckey, the original founder of the Oculus headset before it was purchased by Facebook. Luckey claimed that Oculus would continue to "operate independently" and that the company was <u>"not going to track you, flash ads at you, or do anything invasive</u>" following the purchase.

"This acquisition/partnership gives us more control of our destiny, not less! We don't have to compromise on anything", Luckey continued, "I would never have done this deal if it meant changing our direction".

Neither Luckey nor Facebook responded to a request for comment from The Independent before time of publication.

This is not the first time that Facebook has broken a promise made by Luckey. The founder also "guarantee[d] that you won't need to log into your Facebook account every time you wanna use the Oculus Rift", but Facebook announced that all new users will be required to sign up with their Facebook account if they are using an Oculus headset for the first time in October 2020.

Oculus Quest users have attempted to hack the virtual reality headset to separate it from its parent company, with Luckey himself matching a \$5000 reward set by a Mozilla developer for any hacker able to "break free of FB's anti-competitive, anti-privacy ecosystem".

Read More

'At Facebook I was middle-aged at 35': Sheryl Sandberg shares how 'Silicon Valley worships youth'

Man allegedly fails drug test for new job after eating Tesco poppy seed bread

Document INDOP00020210617eh6h003bm

Facebook's upcoming smartwatch will have two cameras – and one faces towards you whenever you check

the time



#### Facebook to Begin Testing Ads in Virtual Reality -- Market Talk

138 words
17 June 2021
00:56
Dow Jones Newswires Chinese (English)
RTNW
English
Copyright © 2021, Dow Jones & Company, Inc.

1501 ET - Facebook is working to extend its stronghold on digital advertising to virtual reality. The company says in the next few weeks it will start testing ads on its Oculus Quest headsets as a potential new way for itself and app developers to generate revenue. The ads will adhere to Facebook's existing rules around privacy, the company says. Virtual reality, or VR, places users in a completely digital environment, cutting off their view of the real world for a fully immersive experience. It has a long way to go to reach mainstream adoption, but proponents are betting that the technology and its cousin, augmented reality, will be the next big computing interfaces. (sarah.needleman@wsj.com; @saraheneedleman)

(END) Dow Jones Newswires

16-06-21 1926GMT

Document RTNW000020210616eh6g000hp



#### Facebook to Begin Testing Ads in Virtual Reality -- Market Talk

1,264 words
17 June 2021
00:31
Dow Jones Institutional News
DJDN
English

Copyright © 2021, Dow Jones & Company, Inc.

1501 ET - Facebook is working to extend its stronghold on digital advertising to virtual reality. The company says in the next few weeks it will start testing ads on its Oculus Quest headsets as a potential new way for itself and app developers to generate revenue. The ads will adhere to Facebook's existing rules around privacy, the company says. Virtual reality, or VR, places users in a completely digital environment, cutting off their view of the real world for a fully immersive experience. It has a long way to go to reach mainstream adoption, but proponents are betting that the technology and its cousin, augmented reality, will be the next big computing interfaces. (sarah.needleman@wsj.com; @saraheneedleman)

1455 ET - Federal Reserve Chairman Jerome Powell says Wednesday at his post Federal Open Market Committee press conference that "I now suggest that we retire that term," in reference to the Fed's mantra it will be time to talk about talking about pulling back on asset buying. He declined to say when a taper might happen, adding the Fed will give advance warning of a shift and says "the timing of course...will depend on the pace of that progress and not on any calendar." (michael.derby@wsj.com)

1450 ET - US benchmark oil prices finish a tiny 0.04% higher at \$72.15 barrel, but that was still enough for a fresh, 32-month-high. Buying of the commodity came mostly after the EIA reported a bullish, 7.4-million-barrel weekly drop in US oil inventories. But that price-supportive sentiment was countered later in the session due to risk aversion as US stock markets fell after the Fed signaled it expects to raise interest rates by late 2023. Markets were also caught off-guard by a rare increase in US oil production to 11.2M barrels a day, which is the highest output in 13 months. If US production keeps trending higher, crude's long-running price rally could stall. (dan.molinski@wsj.com)

1445 ET - In his press conference, Federal Reserve Chairman Jerome Powell said "inflation could turn out to be higher and more persistent" than officials expect amid an unprecedented process of reopening. He said the Fed will use monetary policy to deal with it if it happens, but notably, Fed forecasts don't show a sustained inflation break out once this year is over. ( michael.derby@wsj.com )

1444 ET - Federal Reserve Chairman Jerome Powell says Wednesday central bank officials discussed pulling back on asset buying but said the conditions to allow that to happen remain some ways off. Powell's comments reflect comments of his colleagues coming into the Federal Open Market Committee, most of whom acknowledged it would soon be time to talk about pulling back on stimulus. (michael.derby@wsj.com)

1438 ET - McDonald's is working with Beyond Meat on plant-based alternatives in markets, but the company isn't plunging into the phenomenon yet. "We do recognize that plant-based is a long-term trend," CEO Chris Kempczinski says at a CNBC business event. "These things tend to take quite a while to play out. These are not things in our experience that happened overnight." Kempczinski says a recent remark by Impossible Foods that plant-based products could become dominant in the next five to 10 years was "optimistic." (heather.haddon@wsj.com; @heatherhaddon)

1432 ET - McDonald's CEO Chris Kempczinski says companies need to pay more than the federal minimum wage to attract workers in a strong US economy coming out of the pandemic. "I think there's no doubt that \$7.25 in this day and age is not what you should be paying or need to be paying to be competitive in the marketplace," Kempczinski says at a CNBC business event. The company is boosting wages in its US restaurants, and says it's watching what Amazon, Walmart and other companies' moves on pay are. "That's a talent pool that we're competing with, so we respond to where the market is moving," he says. (heather.haddon@wsj.com; @heatherhaddon)

1422 ET - US bank stocks strengthened after Fed officials signal rates could go up by late 2023, sooner than they anticipated in March. Bank of America, Wells Fargo, JPMorgan Chase, KeyCorp, PNC Financial and Morgan Stanley are all higher. The Fed's outlook reflects both economic recovery and inflation stronger than the central bank anticipated just a few months ago. "Progress on vaccinations has reduced the spread of Covid-19 in the United States," the Fed says, adding that bond purchases will continue for the time being. (paulo.trevisani@wsj.com; @ptrevisani)

Page 95 of 148 © 2022 Factiva, Inc. All rights reserved.

1413 ET - US stocks extend earlier losses as Federal Reserve officials signal they expect to raise interest rates by late 2023, sooner than they anticipated in March, as the economy recovers rapidly from the effects of the pandemic and inflation heats up. Major indexes do pare some of the initial knee-jerk reaction recently trading off around 0.5%. Treasury prices slip on the news, with the 10-year yield rising to 1.51%. The dollar meanwhile strengthens against the yen and euro. (patrick.sullivan@wsj.com)

1412 ET - People on social media might call it a "hold my beer" moment. Just three weeks after Ford announced it would spend \$30B on electrification by 2030, GM says it will spend \$35B on electric vehicles and autonomous vehicles through 2025. Both announcements gave a boost to the automakers' share prices on the days they were announced.—GM trades 2% higher today. But investors should keep in mind that neither company said the spending would be purely for electric cars. Ford said "electrification," which could even mean non-plug-in, mild hybrids, while GM says the spending would be for "electric vehicles and autonomous vehicles," which theoretically could be gasoline-powered AVs. (dan.molinski@wsj.com)

1408 ET - In a largely surprise free Fed meeting outcome, the big news may be the Fed's increase in its interest on excess reserves rate to 0.15%, from 0.10%, and the increase in its reverse repo rate from 0% to 0.05%. This could take stress off of money markets and divert some of the massive inflows of cash the Fed has seen at its reverse repo facility. The Fed said "setting the interest rate paid on required and excess reserve balances 15 basis points above the bottom of the target range for the federal funds rate is intended to foster trading in the federal funds market at rates well within the Federal Open Market Committee's target range and to support the smooth functioning of short-term funding markets." ( michael.derby@wsj.com )

1348 ET - Shares of steelmakers Nucor and Steel Dynamics remain lower with the broader market today despite better than expected 2Q profit forecasts and continued bullish outlooks for steel demand in 3Q. "Order entry continues to be robust," says Steel Dynamics. "The company believes this momentum will continue, resulting in even stronger third-quarter results." Nucor, which recently plowed past \$100 a share, says it's not seeing demand weakening either. "We believe that these strong market conditions will continue in the third quarter." Nucor down 1.9 at \$100.02. Steel Dynamics off 1.8% at \$62.05 a share. (robert.tita@wsj.com; @bob\_tita)

(END) Dow Jones Newswires

June 16, 2021 15:01 ET (19:01 GMT)

Document DJDN000020210616eh6g004bm



#### 14:25 EDT FacebookGaming debuts Fan Groups to connect fans and streamers,...

114 words 15 June 2021 Theflyonthewall.com FLYWAL English

(c) 2021. Theflyonthewall.com. All Rights Reserved.

14:25 EDT Facebook Gaming debuts Fan Groups to connect fans and streamers, Engadget saysFacebook is introducing a new type of group but for now limited to Gaming creators, wrote Engadget's Kris Holt. Streamers are now able to utilize new features in Fan Groups, like the functionality to organize topics into threaded discussions, added the Engadget story. "There's a new type of post called Looking for Players. The idea is to help users find people to play games with from within a streamer's community, so it's a looking for group feature," said Engadget in the story.

#### Reference Link

Document FLYWAL0020210615eh6f00z9h



#### Apocalypse Studios Selects Tafi's Character Creator SDK for Meta-Gaming

837 words 10 June 2021 18:30 PR Newswire PRN English

Copyright © 2021 PR Newswire Association LLC. All Rights Reserved.

Leveraging the power of meta-gaming to transform the way people play games

NIAGARA, Ontario and SALT LAKE CITY, June 10, 2021 /PRNewswire/ -- Apocalypse Studios, the AAA game studio behind Deadhaus Sonata, today announced a partnership with Tafi, the leading provider of 3D avatar solutions, to use Tafi's avatar and character creator technology for both in-game use and beyond. Apocalypse Studios was founded by Denis Dyack, the creator of many critically acclaimed video games including Blood Omen: Legacy of Kain, Eternal Darkness: Sanity's Requiem, and Metal Gear Solid: Twin Snakes.

For Apocalypse Studios, this partnership builds on its mission to transform the way people play video games by utilizing a cloud-first approach, the highest quality standards, and a deep social media integration. For Tafi, this partnership represents its first foray with a AAA game studio powered by Amazon Lumberyard, the only high-fidelity 3D engine to be fully integrated with cloud services.

"The age of Meta-gaming is upon us," said Denis Dyack, founder of Apocalypse Studios. "I have been a huge fan of Tafi's Daz Studio software for years due to its best-in-class technology and huge selection of high-quality 3D assets. When I learned that Tafi released its first-of-its-kind avatar and character creation SDK, I immediately recognized the power to allow gamers to experience Deadhaus Sonata outside of the game itself. We have been extremely impressed with its capabilities not only for its on-demand, streaming character creation in run-time, but also for its ability to bring the character experience into other immersive applications and virtual worlds."

Apocalypse Studios' first title, Deadhaus Sonata, is a narrative driven action RPG designed for today's medium -- a free-to-play single or co-op multiplayer adventure with direct integration into cloud services. Tafi's character creator technology will enable Deadhaus Sonata to leverage run-time morphing and other game-changing features, giving players the freedom to customize their character and in-game experience.

"We are thrilled to partner with Apocalypse Studios," said Preston Woo, Chief Strategy Officer of Tafi. "We love the innovative, cloud-first approach of the company, and the collaborative nature of Denis and the team. We see this as an incredible opportunity to showcase our SDK's abilities in the AAA gaming environment while enabling the advent of meta-gaming. We expect that this partnership will be a true game-changer for the industry."

"Players are looking for more opportunities to experience game worlds as active creators, and meta-gaming gives studios new ways to grow their community," said Amar Mehta, General Manager of Amazon Lumberyard. "We're excited to see how Apocalypse Studios and Tafi are partnering to collaborate on innovative meta-gaming capabilities in Deadhaus Sonata to give players a dynamic, engaging, and highly personalized experience."

With the flexibility of Tafi's SDK, Apocalypse Studios also has plans on pioneering the meta-gaming experience, a concept that entails widely expanding the game experience into additional applications beyond the initial game itself. Tafi's avatar and character creation SDK system uniquely makes it possible for avatar and video game characters to be implemented into different platforms such as video conferencing, live streaming, social media, mobility, and companion apps -- allowing game characters and content to seamlessly travel outside of the game itself.

#### **About Apocalypse Studios**

Founded in 2018 by Denis Dyack, Apocalypse Studios Inc ("Apocalypse") focuses exclusively on Free To Play (F2P) online multiplayer games with a "Games as a Service (GaaS)" approach. Apocalypse believes in Community Driven Game Design and working with the community directly involving them in the game design process to make games the best they can be. Learn more at <a href="https://apocalypse333.com">https://apocalypse333.com</a>.

#### About Tafi

Founded in 2019, Tafi's mission is to make personalized avatars and branded digital content available to anyone and everyone who wants to level-up their digital personality. Tafi's best-in-class avatar solutions are portable across platforms including mobile, gaming, XR, social media, messaging, and video communications. Tafi is also the developer of Daz 3D, a 3D marketplace and free software suite with content that can go anywhere. Tafi's investors include Benchmark Capital, Columbia Capital, and Ponte Partners. Learn more at <a href="https://www.MakeTafi.com">www.MakeTafi.com</a>.

About Tafi's SDK

Tafi's Astra SDK is a powerful character creator solution that helps creators streamline avatar creation, in-app purchases, and character customization. The Astra SDK empowers developers to deliver and monetize full-body 3D avatar creation experiences for games and apps across mobile, desktop, and VR/AR. Tafi's cutting-edge technology saves development time and is easy to implement on an affordable budget. Learn more at <a href="https://maketafi.com/Astra-SDK">https://maketafi.com/Astra-SDK</a>.

CONTACT

**Kasey Thomas** 

tafi@nextpr.com

View original content to download multimedia:

http://www.prnewswire.com/news-releases/apocalypse-studios-selects-tafis-character-creator-sdk-for-metagaming-301309555.html

SOURCE Tafi

/Web site: https://www.maketafi.com

(END)

Document PRN0000020210610eh6a000gw

Wondr Gaming; Wondr Gaming Enters Into Binding Agreement to Acquire Hot Dot Media Inc. a Tik Tok, Instagram, Facebook, and YouTube Influencer Network with reach to 100,000,000+ Followers

589 words 9 June 2021 Mergers & Acquisitions Week MAAW 34 English

© Copyright 2021 Mergers & Acquisitions Week via VerticalNews.com

2021 JUN 9 (VerticalNews) -- By a News Reporter-Staff News Editor at Mergers & Acquisitions Week -- Wondr Gaming Corp. (CSE: WDR) (CSE: WDR.WT) (the "Company" or "Wondr Gaming") a company providing partnerships in media through loyalty and rewards, is pleased to announce it has entered into a binding agreement dated May 25, 2021 (the "Definitive Agreement") to acquire Hot Dot Media Inc. ("HDM"), a social media agency focused exclusively on emerging platforms with media reach through a diverse network of creators totaling 100,000,000+ followers across TikTok, Instagram, Facebook, and YouTube.

Pursuant to the Definitive Agreement, the Company has agreed to acquire all of the issued and outstanding common shares of HDM in exchange for 8,000,000 common shares of the Company to be issued to the shareholders of HDM at a deemed price of \$0.25 per share. The parties expect the acquisition to close on or around June 1, 2021.

All common shares issued in connection with the acquisition of HDM are subject to a four-month and one day resale restriction and an 18-month voluntary escrow agreement between the selling shareholders of HDM and the Company.

Transaction Highlights and Benefits

Vertically integrates Wondr Gaming with influencer reach and an entrepreneur team to work with targeted audiences within the Wondr Gaming ecosystem to drive its customer acquisition flywheel.

The integration of HDM will allow the Wondr Gaming group to drive contextual creative content and the opportunity to monetize those eyeballs through its gaming rewards platform as well as its soon to be wholly-owned non-fungible token ("NFT") platform (announced May 17, 2021).

Allows Wondr Gaming to build a brand as the go-to NFT platform and marketing agency for all things short-form content and paid advertising.

"Wondr Gaming is relentlessly focused on growing our media business, and the acquisition of Hot Dot Media uniquely positions us to bridge the gap between global brands and the esports and conventional sports communities. Having media reach through 100,000,000+ followers allows for endless opportunities in both the gaming and rewards ecosystem, as well as our NFT Platform. We believe that contextual content is the future, and gaining access to HDM's expertise and network is the first step in helping us monetize this growing vertical.", commented Jon Dwyer, Chairman & CEO of Wondr Gaming.

Founded in 2019, HDM offers an end-to-end solution for influencer marketing by sourcing talent, handling logistics, and running paid advertisements. HDM has developed a cutting-edge internal process for matching brands with creators. The process has enabled HDM to conduct campaigns for leading firms in apparel, esports, DTC, consumables, oral care, and SaaS.

HDM has reach through influencers with 100,000,000+ total followers across TikTok, Instagram, Facebook and YouTube. It enables creators to work with targeted brands to create contextual content, further driving efficiencies for both the creators and the brands. HDM has driven over 3M organic influencer impressions in Q1 of 2021.

Before joining HDM as CEO, Adam Silverman worked with industry leaders in blockchain, financial services, and education technology to market their brands on alternative platforms such as Quora, Telegram, Reddit, and TikTok.

Keywords for this news article include: Marketing, Advertising, Wondr Gaming, Mergers and Acquisitions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document MAAW000020210609eh6900017

Page 100 of 148 © 2022 Factiva, Inc. All rights reserved.

#### FacebookGaming Extends Stars Monetization Option to Video-on-Demand Creators

David Cohen 303 words 26 May 2021 Adweek ADWE English Copyright 2021. Adweek

Creators of <u>live videos for Facebook Gaming</u> already enjoy several monetization options, and some of those options are now being extended to creators of prerecorded and edited gaming videos, or video-on-demand.

Facebook Gaming began testing its <u>Stars</u> monetization option for VOD content with a small group of creators, enabling viewers to send creators Stars and their accompanying contributions.

VOD creators can set Stars goals for videos in their creator dashboard and track their progress in real-time.

A Stars ticker will display messages containing Stars, and animations will play when Stars are sent.

Facebook Gaming also added new tools for creators to Stars senders individually or in batches.

For creators of live videos, Facebook Gaming began testing Live Breaks with a limited number of partner gaming creators.

Live Breaks are a new form of mid-roll ad manually triggered at 30, 90 or 150 seconds and incorporating a mixture of standard mid-roll ads and creator-generated or viewer-generated content, such as highlights, clips or curated calls to action.

Finally, Facebook Gaming extended its <u>Level Up</u> program for creators to Hong Kong, Kenya, Nigeria, Norway, Paraguay, Sri Lanka, Switzerland, Ukraine and Venezuela.

CEO <u>Mark Zuckerberg</u> wrote in a <u>Facebook post</u>, "We want to build the best platform for millions of creators to make a living. That includes game streamers and gaming creators, and today, we're starting to test some new tools to help them make a living. Stars for gaming videos on-demand give fans a new way to support creators while watching gaming videos, and Live Breaks allow creators to take a break from livestreaming while earning money and keeping viewers entertained. Hopefully, these tools and more will help more people do creative work they enjoy."

Document ADWE000020210629eh5q000j2

Cerebrovascular Diseases and Conditions - Stroke; Research Results from Hanchuan People's Hospital Update Understanding of Stroke (Effectiveness of Virtual Reality in the Rehabilitation of Motor Function of Patients With Subacute Stroke: A Meta-Analysis)

597 words 17 May 2021 Clinical Trials Week CTRW 5120 English

© Copyright 2021 Clinical Trials Week via NewsRx.com

2021 MAY 17 (NewsRx) -- By a News Reporter-Staff News Editor at Clinical Trials Week -- New study results on stroke have been published. According to news reporting out of the Hanchuan People's Hospital by NewsRx editors, research stated, "Stroke is a major cause of death and disability in adults. Conventional therapy (CT) has limited effectiveness, and therefore, various virtual reality (VR) rehabilitation programs have been designed. However, their efficacy in regaining motor function in patients with subacute stroke is questionable."

The news journalists obtained a quote from the research from Hanchuan People's Hospital: "Therefore, we conducted this meta-analysis to determine the efficacy of VR, compared to CT, in restoring motor function in this patient population. Up to October 10, 2020, nine electronic databases were searched for relevant articles reporting the effectiveness of VR in regaining motor function in patients with subacute stroke. This search was updated on March 7, 2021, with no additional added articles. The control group included CT, physical therapy, occupational therapy, or a combination of them. Effectiveness is defined as the positive change from baseline values to the last follow-up point. The Cochrane's revised risk-of-bias tool was used to determine the quality of included trials. A metaregression analysis was conducted to determine the effect of 'time since last stroke' on reported outcomes. Publication bias and sensitivity analyses were also carried out. A total of 19 studies (17 randomized controlled trials, 1 cohort study, and 1 crossover trial) were included in the qualitative analysis, whereas 16 trials were meta-analyzed. A great improvement in motor function was noted in the VR group, when compared to preintervention values [standardized mean difference (SMD) = 1.14; 95% confidence interval (CI) = 0.77-1.52; I2 = 82%; P < 0.001]. When compared to CT, VR resulted in mild improvement in motor function (SMD = 0.47; 95% CI = 0.22-0.72; I2 = 75%; P < 0.001). However, upon trim-and-fill adjustment, this finding was deemed insignificant (SMD = 0.08; 95% CI = -0.16 to 0.33; I2 = 82.6%; P < 0.001). Ten studies had low risk, five had some concerns, three had high risk, and one had a moderate risk of bias."

According to the news reporters, the research concluded: "VR programs can be used jointly with CT for the rehabilitation of the motor function of patients with subacute stroke. However, more studies are still warranted to determine the effectiveness of these interventions in retaining the cognitive function and physical performance of such patients."

For more information on this research see: Effectiveness of Virtual Reality in the Rehabilitation of Motor Function of Patients With Subacute Stroke: A Meta-Analysis. Frontiers in Neurology, 2021,12. (Frontiers in Neurology - http://frontiersin.org/neurology). The publisher for Frontiers in Neurology is Frontiers Media S.A.

A free version of this journal article is available at <a href="https://doi.org/10.3389/fneur.2021.639535">https://doi.org/10.3389/fneur.2021.639535</a>.

Our news editors report that additional information may be obtained by contacting Quan-cheng Peng, Department of Rehabilitation Medicine, Hanchuan People's Hospital, Hanchuan, People's Republic of China. Additional authors for this research include Ling Yin, Yi Cao.

Keywords for this news article include: Hanchuan People's Hospital, Stroke, Rehabilitation, Health and Medicine, Cerebrovascular Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CTRW000020210517eh5h0007e



Psychiatry; Reports Summarize Psychiatry Study Results from Flinders University (Global Prevalence of Gaming Disorder: a Systematic Review and Meta-analysis)

521 words 14 May 2021 Health & Medicine Week HAMW 4789 English

© Copyright 2021 Health & Medicine Week via NewsRx.com

2021 MAY 21 (NewsRx) -- By a News Reporter-Staff News Editor at Health & Medicine Week -- Investigators discuss new findings in Psychiatry. According to news originating from Adelaide, Australia, by NewsRx correspondents, research stated, "Gaming disorder was included in the latest revision of the International Classification of Diseases (11th ed.). Worldwide, prevalence estimates of gaming disorder are considerably heterogeneous and often appear to be exceedingly high."

Financial support for this research came from Discovery Early Career Researcher Award (DECRA) - Australian Research Council (ARC).

Our news journalists obtained a quote from the research from Flinders University, "However, few studies have examined the methodological, cultural and/or demographic factors that might explain this phenomenon. This review employed meta-analytic techniques to compute the worldwide-pooled prevalence of gaming disorder and evaluate the potential contributing factors for varied prevalence estimates. Prevalence estimates were extracted from 53 studies conducted between 2009 and 2019, which included 226,247 participants across 17 different countries. Study findings were meta-analyzed using a random-effects model. Subgroup and moderator analyses examined potential sources of heterogeneity, including assessment tool and cut-off, participant age and gender, sample size and type, study region, and year of data collection. The worldwide prevalence of gaming disorder was 3.05% (confidence interval: [2.38, 3.91]); this figure was adjusted to 1.96% [0.19, 17.12] when considering only studies that met more stringent sampling criteria (e.g. stratified random sampling). However, these estimates were associated with significant variability. The choice of screening tool accounted for 77% of the variance, with the Lemmens Internet gaming disorder-9, Gaming Addiction Identification Test and Problematic Videogame Playing scales associated with the highest estimates. Adolescent samples, lower cut-off scores and smaller sample size were significant predictors of higher prevalence. Gaming disorder rates were approximately 2.5:1 in favor of males compared to females. The worldwide prevalence of gaming disorder appears to be comparable to obsessive-compulsive disorder and some substance-related addictions, but lower than compulsive buying and higher than problem gambling."

According to the news editors, the research concluded: "Gaming disorder prevalence rates appear to be inflated by methodological characteristics, particularly measurement and sampling issues."

This research has been peer-reviewed.

For more information on this research see: Global Prevalence of Gaming Disorder: a Systematic Review and Meta-analysis. Australian & New Zealand Journal of Psychiatry, 2020. Australian & New Zealand Journal of Psychiatry can be contacted at: Sage Publications Ltd, 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England. (Sage Publications - <a href="https://www.sagepub.com/">www.sagepub.com/</a>; Australian & New Zealand Journal of Psychiatry - anp.sagepub.com)

The news correspondents report that additional information may be obtained from Daniel L. King, Flinders University, Coll Educ Psychol & Social Work, Adelaide, Sa, Australia. Additional authors for this research include Matthew W. R. Stevens, Diana Dorstyn and Paul H. Delfabbro.

Keywords for this news article include: Adelaide, Australia, Australia and New Zealand, Psychiatry, Flinders University.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document HAMW000020210514eh5e000kz



## Bigo Live to Host Gaming Live Streams with Mobile Legends: Bang Bang (MLBB) on YouTube and Facebook

Bigo Live; PR Newswire 422 words 13 May 2021 11:30 PR Newswire Europe TWOTEN English

Copyright © 2021 PR Newswire Europe Limited. All Rights Reserved.

DUBAI, UAE, May 13, 2021 /PRNewswire/ -- <u>Bigo Live</u>, a global leading live streaming platform is set to host an interactive competition with Mobile Legends: Bang Bang (MLBB) on <u>YouTube</u> and <u>Facebook</u> on Saturday, 15th May 2021 from 4:00pm to 9:00pm (KSA time).

https://mma.prnewswire.com/media/1508794/image\_849502\_44605848.jpg

Game lovers whose BIGO IDs are @Leayellow, @Mariam\_maro, @dorra., @429744188 and @374759840 will interact with the audience in a highly engaging and entertaining manner. To make the live streams more appealing, viewers will have the opportunity to secure redeem codes and MVP players will be awarded co-branded skateboards.

"Online gaming is not just another form of competition or entertainment, but a new way to meet people with similar interests where they can socialize and build meaningful connections with each other," said a spokesperson from Bigo Live. "The online gaming industry is quickly evolving and becoming bigger, better and more engaging every day. We believe that we need to facilitate an environment that is fun, welcoming and exciting for everyone and we are certain that this activation with MLBB on YouTube will prove the same. We are excited to see the level of joy this activity will bring and look forward to welcoming more gamers, nurture talent, build communities and host similar livestream events over the coming months."

The Strategy & Middle East report, titled 'Skin in the Game', reveals that the GCC Esports market is undergoing expansion at a rapid pace, and is estimated to be worth USD821 million by 2021 – up from USD693 million in 2017.

Esports and online gaming is quite significant for Bigo Live. Bigo Live intends to collaborate with the most popular games to host events in the Middle East and promote social integration for game enjoyment through livestreaming. Furthermore, Bigo Live will continue to welcome celebrity gamers onto the platform and assist with the identification and development of talent from users who aspire to be professional gamers.

Visit www.bigo.sg for more information on BIGO's brand and products.

https://mma.prnewswire.com/media/1476800/Bigo Live Logo.jpg

Photo - https://mma.prnewswire.com/media/1508794/image 849502\_44605848.jpg

Logo - https://mma.prnewswire.com/media/1476800/Bigo\_Live\_Logo.jpg

https://rt.prnewswire.com/rt.gif?NewsItemId=EN75384&Transmission\_Id=202105130200PR\_NEWS\_EURO\_ND\_EN75384&DateId=20210513

Weiping Huang, huangweiping@bigo.sg, +86 13433173804

Document TWOTEN0020210513eh5d000dx

### THE WALL STREET JOURNAL.

The Future of Everything

Life

WSJ Future of Everything Festival Features Interviews With Ray Dalio, Marc Benioff; Executives from Facebook, Mattel, Bumble, Barnes & Noble are also set to speak at the first day of the virtual event

By WSJ Staff 515 words 11 May 2021 15:00 The Wall Street Journal Online WSJO English

Copyright 2021 Dow Jones & Company, Inc. All Rights Reserved.



The Future of Everything Festival in 2019 took place in New York. PHOTO: Gary He for The Wall Street Journal

The Wall Street Journal is hosting its virtual Future of Everything Festival with top executives, technologists and creatives to examine the lasting impact of the pandemic, as Covid-19 cases drop and <u>states continue to roll back restrictions</u> implemented during the pandemic.

The three-day festival launches amid new calls for <u>corporate leaders to take a stand</u> on issues ranging from immigration to climate change and voter access, while <u>businesses struggle to fill open jobs</u>.

Here is a rundown of interviews. Access to the festival is complimentary for Journal subscribers. You can see more details here.

Bridgewater Associates founder Ray Daliokicked off the festival by discussing how the pandemic will impact jobs, productivity and personal finances.

Google Vice President Marian Croak, one of a number of technology leaders appearing at the festival, spoke about the role of ethics and eliminating bias in developing responsible Al.

After more than a year of remote work, Marc Benioff, chief executive of Salesforce.com Inc., spoke about "inventing the playbook" for the workplace going forward, and what that means for employees on and offsite, as well as those who are just starting.

Facebook Inc.'s chief technology officer, Mike Schroepfer, spoke about the company's moderation challenges, as well as what it will take for widespread adoption of virtual reality. Then, Whitney Wolfe Herd, the founder of dating app Bumble Inc., <u>discussed the new ways people are connecting online for friendship and romance</u> and the scrutiny of female entrepreneurs.

<u>Chef and restaurateur Marcus Samuelsson</u> addressed the hiring challenges facing restaurants, followed by <u>Ann Mukherjee</u>, the chairman and CEO of Pernod Ricard SA's North American business who spoke about brands' responsibility to speak up about alcohol and consent.

A series of interviews on the future of political parties and American government featured Oren Cass, the executive director of American Compass, and author J.D. Vance, who dissected what comes next for the Republican party, and Ro Khanna (D., Calif.), who outlined the future for Democrats as the Biden administration pushes a <u>robust spending plan that addresses infrastructure and education</u>.

In an era of profound change in the retail space James Daunt, the CEO of Barnes & Noble Inc., said the way for bookstore chains to succeed was to abandon the idea of uniformity, and allow stores to cultivate their own cultures. He also spoke about the ways in which Amazon, long-seen as a threat to book sellers, helps the chain's business model, by developing voracious readers.

At 7 p.m. ET, the day concludes with a series of entertainment discussions featuring author Tomi Adeyemi, actress Gabrielle Union with former NBA player Dwyane Wade, and director Barry Jenkins who is behind the new Amazon Prime series "Underground Railroad."

WSJ Future of Everything Festival Features Interviews With Ray Dalio, Marc Benioff

Document WSJO000020210511eh5b000xe

Nursing - Nursing Education; New Nursing Education Findings from National University of Singapore Described (Effectiveness of Virtual Reality Training In Improving Knowledge Among Nursing Students: a Systematic Review, Meta-analysis and Meta-regression)

555 words 10 May 2021 Clinical Trials Week CTRW 3906 English

© Copyright 2021 Clinical Trials Week via NewsRx.com

2021 MAY 10 (NewsRx) -- By a News Reporter-Staff News Editor at Clinical Trials Week -- Investigators publish new report on Nursing - Nursing Education. According to news reporting originating from Singapore, Singapore, by NewsRx correspondents, research stated, "We aimed to (1) evaluate the effectiveness of virtual reality (VR) training in improving knowledge among nursing students and (2) identify the essential features of training. This systematic review was conducted according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses guidelines."

Our news editors obtained a quote from the research from the National University of Singapore, "Randomised controlled trials (RCTs) were obtained from PubMed, EMBASE, Cochrane Library, PsycINFO, Cumulative Index to Nursing and Allied Health Literature, ProQuest and Scopus databases from inception up until 15 October 2019. Review methods: Meta-analysis and random-effects meta-regression was performed using the Comprehensive Meta-analysis 3.0 software. The overall effect was measured using Hedges' q and determined using Z-statistics at the significance level of p< 0.05. Heterogeneity was assessed using <chi >2 and I2 statistics. The risk of bias tool and the Grading of the Recommendation, Assessment, Development and Evaluation (GRADE) system were employed to assess individual and overall quality of evidence. respectively. Among the 1993 records identified, 14 trials were included. Meta-analysis demonstrated a significant improvement in knowledge, with a small-to-medium effect (g = 0.47) in the VR group compared to the control group (Z = 2.66, p = 0.01). Subgroup analyses highlighted that VR training was more efficacious in delivering procedural knowledge to undergraduate nursing students when conducted in multiple, self-guided, short sessions within 30 min and by using low-moderate level of immersion. Meta-regression did not detect significant covariates that influenced knowledge scores. Virtual reality may be a viable teaching strategy to improve knowledge acquisition, but it is presently suitable for supplementing conventional teaching methods. Nonetheless, VR could complement current pedagogy to address challenges associated with decreased clinical placement opportunities."

According to the news editors, the research concluded: "Larger, well designed RCTs are required to strengthen the evidence about the effectiveness of VR training. <comment >Superscript/Subscript Available </comment."

This research has been peer-reviewed.

For more information on this research see: Effectiveness of Virtual Reality Training In Improving Knowledge Among Nursing Students: a Systematic Review, Meta-analysis and Meta-regression. Nurse Education Today, 2021;98:104655. Nurse Education Today can be contacted at: Churchill Livingstone, Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland. (Elsevier - <a href="https://www.elsevier.com">www.elsevier.com</a>; Nurse Education Today -

The news editors report that additional information may be obtained by contacting Ying Lau, National University of Singapore, Alice Lee Center for Nursing Studies, Yong Loo Lin School of Medicine, Singapore, Singapore. Additional authors for this research include Adele Pei Ning Woon, Wen Qi Mok, Ying Jia Shermin Chieng, Hui Min Zhang, Patricia Ramos and Haryani Binte Mustadi.

Keywords for this news article include: Singapore, Singapore, Asia, Nursing Education, Nursing, National University of Singapore.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CTRW000020210510eh5a0004i

Neurodegenerative Diseases and Conditions - Parkinson's Disease; Hong Kong Polytechnic University Researchers Add New Findings in the Area of Parkinson's Disease (The Effect of Virtual Reality Rehabilitation on Balance in Patients with Parkinson's Disease: A Systematic Review and Meta-Analysis)

511 words 10 May 2021 Clinical Trials Week CTRW 2835 English

© Copyright 2021 Clinical Trials Week via NewsRx.com

2021 MAY 10 (NewsRx) -- By a News Reporter-Staff News Editor at Clinical Trials Week -- Research findings on Parkinson's disease are discussed in a new report. According to news reporting out of Hong Kong Polytechnic University by NewsRx editors, research stated, "As a popular method, virtual reality (VR) is still controversial in its effect on the balance function of patients with Parkinson's disease. This systematic review aims to discuss such effects of VR and to compare it with that resulting from traditional therapies."

The news editors obtained a quote from the research from Hong Kong Polytechnic University: "A comprehensive search was conducted for randomized controlled trials published from 2000 to 2020 through the following databases: PubMed, Web of Science, CINAHL, Embase, Cochrane Library. Fifteen articles were included for the systematic review. An evaluation on their methodological qualities was performed using the PEDro scale, followed by an assessment of their risk of biases in accordance with the Cochrane Handbook for Systematic Reviews of Interventions for quality assessment. In terms of dynamic balance, the BBS score of the VR group was significantly improved when compared with the control group (SMD = 0.52, 95% CI = 0.31-0.73). However, no significant difference was observed between the two groups on TUG (SMD = -0.26; 95% CI = -0.62-0.1; \* \* p\* \* = 0.16). Besides, the VR group also showed better results in improving patients' static balance, balance confidence, and quality of life. A funnel plot was created to investigate the effects of each study included in the meta-analysis in order to identify any existing publication bias."

According to the news editors, the research concluded: "This systematic review shows that the application of VR leads to more significant improvement in the balance of patients with Parkinson's disease than having them perform traditional exercises. It can be used as an auxiliary method of rehabilitation."

For more information on this research see: The Effect of Virtual Reality Rehabilitation on Balance in Patients with Parkinson's Disease: A Systematic Review and Meta-Analysis. Electronics, 2021,10(1003):1003. (Electronics - http://www.mdpi.com/journal/electronics). The publisher for Electronics is MDPI AG.

A free version of this journal article is available at <a href="https://doi.org/10.3390/electronics10091003">https://doi.org/10.3390/electronics10091003</a>.

Our news journalists report that additional information may be obtained by contacting Wenjing Wang, Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Hung Hom, Hong Kong. Additional authors for this research include Sharon Sui-lam Wong, Frank Ho-yin Lai.

Keywords for this news article include: Hong Kong Polytechnic University, Rehabilitation, Movement Disorders, Health and Medicine, Parkinson's Disease, Parkinsonian Disorders, Brain Diseases and Conditions, Basal Ganglia Diseases and Conditions, Neurodegenerative Diseases and Conditions, Central Nervous System Diseases and Conditions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CTRW000020210510eh5a0002a



COVID-19/SARS-CoV-2 News from Preprints; Prevalence and Comparisons of Alcohol, Candy, Energy Drink, Snack, Soda, and Restaurant Brand and Product Marketing on Twitch, FacebookGaming, and YouTubeGaming

359 words
7 May 2021
Marketing Weekly News
MRKWN
216
English
© Copyright 2021 Marketing Weekly News via VerticalNews.com

2021 MAY 15 (VerticalNews) -- By a News Reporter-Staff News Editor at Marketing Weekly News -- According to news reporting based on a preprint abstract, our journalists obtained the following quote sourced from osf.io:

"Objective: To compare and evaluate the prevalence of food and beverage marketing on the livestreaming platforms Twitch, Facebook Gaming, and YouTube Gaming, as well as examine growth of food and beverage marketing on these platforms over a 17-month period of data collection. Design: Cross-sectional data was analyzed across three livestreaming platforms and six food and beverage categories: alcohol, candy, energy drinks, snacks, sodas, and restaurants. Setting: Stream titles of livestreamed events as well as corresponding hours watched on Twitch, Facebook Gaming, and YouTube Gaming. Participants: None Results: There were significant differences between food and beverage brand mentions across all three studied platforms (p<0.05), as well as hours watched (p<0.05). Energy drinks dominated food and beverage brand mentions across platforms, followed by restaurants, soda, and snacks. All platforms demonstrated growth over the 17-month data collection period. Post-hoc analyses revealed that the COVID-19 pandemic impacted both immediate and sustained growth across all platforms, with the greatest impact observed on the Twitch platform.

"Conclusions: Food and beverage marketing as measured through stream titles is widely prevalent across the three most popular livestreaming platforms, particularly for energy drinks. Food marketing on these platforms experienced growth over the past 17-months which was accelerated substantially by the COVID-19 pandemic. Future work should assess the sustained impact this growth may have on marketing practices and eating behavior."

This preprint has not been peer-reviewed.

For more information on this research see: osf.io/preprints/socarxiv/gbc4f/

Keywords for this news article include: Food, Viral, Beverage, Virology, Marketing, Advertising, RNA Viruses, COVID-19/SARS-CoV-2 News from Preprints, Severe Acute Respiratory Syndrome Coronavirus 2.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document MRKWN00020210507eh570003x

Robotics; University Hospital Heidelberg Reports Findings in Robotics (Virtual reality simulation in robot-assisted surgery: meta-analysis of skill transfer and predictability of skill)

490 words 5 May 2021 Education Letter EDULTR 4538 English

© Copyright 2021 Education Letter via VerticalNews.com

2021 MAY 5 (VerticalNews) -- By a News Reporter-Staff News Editor at Education Letter -- New research on Robotics is the subject of a report. According to news reporting originating from Heidelberg, Germany, by VerticalNews correspondents, research stated, "The value of virtual reality (VR) simulators for robot-assisted surgery (RAS) for skill assessment and training of surgeons has not been established. This systematic review and meta-analysis aimed to identify evidence on transferability of surgical skills acquired on robotic VR simulators to the operating room and the predictive value of robotic VR simulator performance for intraoperative performance."

Our news editors obtained a quote from the research from University Hospital Heidelberg, "MEDLINE, Cochrane Central Register of Controlled Trials, and Web of Science were searched systematically. Risk of bias was assessed using the Medical Education Research Study Quality Instrument and the Newcastle-Ottawa Scale for Education. Correlation coefficients were chosen as effect measure and pooled using the inverse-variance weighting approach. A random-effects model was applied to estimate the summary effect. A total of 14 131 potential articles were identified; there were eight studies eligible for qualitative and three for quantitative analysis. Three of four studies demonstrated transfer of surgical skills from robotic VR simulators to the operating room measured by time and technical surgical performance. Two of three studies found significant positive correlations between robotic VR simulator performance and intraoperative technical surgical performance; quantitative analysis revealed a positive combined correlation (r = 0.67, 95 per cent c.i. 0.22 to 0.88). Technical surgical skills acquired through robotic VR simulator training can be transferred to the operating room, and operating room performance seems to be predictable by robotic VR simulator performance."

According to the news editors, the research concluded: "VR training can therefore be justified before operating on patients."

For more information on this research see: Virtual reality simulation in robot-assisted surgery: meta-analysis of skill transfer and predictability of skill. BJS Open, 2021;5(2). BJS Open can be contacted at: John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester PO19 8SQ, W Sussex, England.

The news editors report that additional information may be obtained by contacting K. F. Koppinger, Dept. of General, Visceral and Transplantation Surgery, University Hospital Heidelberg, Heidelberg, Germany. Additional authors for this research include M. W. Schmidt, C. Fan, K-F. Kowalewski, L. P. Schmidt, J. Vey, T. Proctor, P. Probst, V. V. Bintintan, B-P. Muller-Stich and F. Nickel.

Publisher contact information for the journal BJS Open is: John Wiley & Sons Ltd, The Atrium, Southern Gate, Chichester PO19 8SQ, W Sussex, England.

Keywords for this news article include: Europe, Germany, Surgery, Robotics, Heidelberg, Machine Learning, Health and Medicine, Emerging Technologies.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document EDULTR0020210505eh55000f1



#### Facebook Still Betting Big on Virtual Reality - Market Talk

1,138 words
29 April 2021
19:36
Dow Jones Institutional News
DJDN
English

Copyright © 2021, Dow Jones & Company, Inc.

1005 ET - Facebook CEO Mark Zuckerberg continued to tout the success of its Oculus Quest 2 device on an earnings call Wednesday, illustrating that the company sees virtual reality as key to its evolution as a technology company. The gear released in October has performed ahead of internal expectations, Zuckerberg said, and Facebook sees an opportunity to expand the ecosystem for VR apps well beyond games. Zuckerberg said VR and its technological cousin, augmented reality, are driving a "major part" of growth in the company's research and development budget. Facebook raised the low-end of its full-year guidance for expenses by \$2B, bringing the new range to \$70B-\$73B. Facebook also said it is directing more money into things like technical and product talent and consumer hardware instead of capital expenditures. Shares up 6%. (bowdeya.tweh@wsi.com; @BowKnowsBiz)

1001 ET - Kimco Realty Corp, an open-air shopping center landlord, said its first quarter net income rose 57% to \$131.6M. The company completed 358 leases spanning 2.8 million square feet during the first three months this year, the highest quarterly lease count since the first quarter of 2019, indicating improvements to tenant health and rent collection. Kimco, whose properties are grocery-anchored with a focus on essential goods and services, recently announced a merger with Houston-based Weingarten Realty Investors. (esther.fung@wsi.com; @estherfung)

1000 ET - Boat and engine maker Brunswick Corp. says recreational boats continue to splash into the water as pandemic-weary consumers started boating earlier in the season. Brunswick posted 48% revenue growth. "Our businesses had a fantastic start to 2021, with a very healthy marine market, strong boating participation and outstanding operating performance," CEO David Foulkes says in a release. (austen.hufford@wsj.com)

0958 ET - Labor challenges aren't letting up in the meat industry, where widespread Covid-19 infections among workers in 2020 added to long-running staffing shortages at processing plants. Chicken company Pilgrim's Pride says it expects to pay out more than \$40M this year to retain workers and compete for new ones, CEO Fabio Sandri says on the company's quarterly earnings call. Shorthanded plants affect meatpackers' bottom lines: Sandri says that challenges fully staffing Pilgrim's plants mean that the company wasn't always able to produce the more heavily processed chicken products that tend to carry higher profits. (jacob.bunge@wsj.com; @jacobbunge)

0954 ET - Altria Group expects big news tied to tobacco regulation to keep coming up, CEO Billy Gifford says on a call about 1Q, as the Biden administration settles in. The Biden administration is considering requiring tobacco companies to lower nicotine content in all cigarettes sold in the US and plan to pursue a ban of menthol cigarettes. Gifford says the company doesn't believe in prohibition efforts, citing unintended consequences that crop up. (micah.maidenberg@wsj.com; @MicahMaidenberg)

0954 ET - McDonald's executives believe they've finally gotten their chicken sandwich right in the ones released in February. "We've had many ins and outs of chicken sandwiches over the years, but I think we did our research," US head Joe Erlinger says in 1Q earnings. Creating a spicy version and marketing the sandwiches to youth has helped this go around, he says. Sales haven't fallen off significantly as they have with past attempts, he says. (heather.haddon@wsi.com: @heatherhaddon)

0947 ET - GDP data indicates that "any remaining output gap should be eliminated before the end of this year," Capital Economics says, highlighting "a massive 10.7% surge in consumption growth." The Commerce Department says the economy expanded at an annual rate of 6.4% in 1Q. CE notes that GDP is set to match, in the current quarter, its pre-pandemic peak, set in 4Q of 2019. "There was plenty of other encouraging news," the research firm says, citing, among other things, an increase of 61.3% in disposable incomes. "Households are still flush with cash" and likely to spend more freely as vaccination advances, CE says. (paulo.trevisani@wsj.com; @ptrevisani)

0945 ET - Trucker Schneider National raises its 2021 earnings outlook, citing strong transport demand and constrained driver capacity through the end of the year. The company expects adjusted 2021 EPS of \$1.60 to \$1.70, up from its original guidance of \$1.45 to \$1.60. Schneider reports \$1.2B in 1Q operating revenue, up Page 111 of 148 © 2022 Factiva, Inc. All rights reserved.

10% from the previous year, while net income jumps 25% to \$54.8M. Income from operations in the company's intermodal segment rose 23% YOY to \$20M as growth in Eastern rail operations offset the impact of Western service issues and bad weather in the quarter. (jennifer.smith@wsj.com)

0936 ET - As the world transitions to renewable energy and electric cars, Caterpillar thinks its mining business will benefit as the demand for materials that go into batteries and other technologies increases. "With just the amount of demand that will be created by that, Caterpillar is very well positioned," says CEO Jim Umpleby. "It will be good for us and our dealers as well." (austen.hufford@wsi.com; @austenhufford)

0934 ET - Kraft Heinz said it's expanding manufacturing capacity for some of its best-selling foods such as macaroni-and-cheese and ketchup, because 20% of its business is still facing capacity constraints and can't keep up with demand. However, grocery sales have been slowing in recent months compared to last year, when people flooded stores with the onset of the pandemic. Kraft expects its comparable sales to decline in the ongoing quarter compared to a year ago. Executives told investors that the food giant will be pressured by more cost inflation and a shift in where people buy food as the economy reopens, but that it is working to keep younger and more diverse shoppers that it gained during the pandemic. (annie.gasparro@wsj.com)

0930 ET - Comcast CEO Brian Roberts says the company saw the least amount of broadband customers drop its service ever during 1Q. Broadband subscriber growth continues to lift Comcast's earnings, despite cable-TV customer losses. Last year, during the height of stay-at-home orders in the pandemic, Comcast and its peers saw record broadband subscriber growth as people relied on their home networks for work and school. The company says it expects broadband subscribers to grow in the low-to-mid single digits in 2021, compared to 2019. Companies like Comcast are measuring this year's growth against 2019 rather than last year, considered an anomaly. Shares up 3% in early trading. (lillian.rizzo@wsj.com; @lilliannnn)

(END) Dow Jones Newswires

April 29, 2021 10:06 ET (14:06 GMT)

Document DJDN000020210429eh4t003gi



## Facebook Still Betting Big on Virtual Reality - Market Talk

165 words
29 April 2021
19:36
Dow Jones Institutional News
DJDN
English
Copyright © 2021, Dow Jones & Company, Inc.

10:05 ET - Facebook CEO Mark Zuckerberg continued to tout the success of its Oculus Quest 2 device on an earnings call Wednesday, illustrating that the company sees virtual reality as key to its evolution as a technology company. The gear released in October has performed ahead of internal expectations, Zuckerberg said, and Facebook sees an opportunity to expand the ecosystem for VR apps well beyond games. Zuckerberg said VR and its technological cousin, augmented reality, are driving a "major part" of growth in the company's research and development budget. Facebook raised the low-end of its full-year guidance for expenses by \$2B, bringing the new range to \$70B-\$73B. Facebook also said it is directing more money into things like technical and product talent and consumer hardware instead of capital expenditures. Shares up 6%. (bowdeya.tweh@wsj.com; @BowKnowsBiz)

(END) Dow Jones Newswires

April 29, 2021 10:06 ET (14:06 GMT)

Document DJDN000020210429eh4t003vp



News - TV

Facebook Earnings: Stock Surges on Q1 Beat, Zuckerberg Touts Virtual Reality, Augmented Reality Potential

Elaine Low 709 words 28 April 2021 Variety VARTY English

© 2021 Variety Media, LLC, a subsidiary of Penske Business Media. All rights reserved.

Shares of Facebook surged in after-market trading Wednesday, spiking more than 5% after the social networking giant recorded a major earnings and revenue beat for the first quarter of fiscal 2021, a period marked by strong advertising revenue growth and a 10% rise in monthly active users. On the earnings call that followed, Facebook CEO Mark Zuckerberg leaned into the potential of virtual reality and augmented reality offerings.

Facebook logged diluted per-share earnings of \$3.30 on total revenue of \$26.17 billion, well ahead of Wall Street's expected earnings of \$2.37 per share on revenue of \$23.67 billion for the March-ended quarter.

"We had a strong quarter as we helped people stay connected and businesses grow," said Zuckerberg. "We will continue to invest aggressively to deliver new and meaningful experiences for years to come, including in newer areas like augmented and virtual reality, commerce, and the creator economy."

Click here to sign up for Variety's new Media Earnings newsletter.

Facebook's after-hours spike came after closing up 1.1% on Wednesday, outpacing the broader market's flattish day. The company's Q1 figures included 1.88 billion daily active users, up 8% year over year, and 2.85 billion monthly active users, marking a 10% pop from the prior-year quarter.

Facebook CFO David Wehner highlighted ad revenue growth, which was fueled by a 30% rise in average ad prices and 12% growth in the number of ads delivered.

"We expect second quarter 2021 year-over-year total revenue growth to remain stable or modestly accelerate relative to the growth rate in the first quarter of 2021 as we lap slower growth related to the pandemic during the second quarter of 2020," he said in the company's earnings statement. He expects Q3 and Q4 revenue growth rates to "significantly decelerate," however, as Facebook laps the prior-year's strong quarters.

Facebook expects annual expenses to amount to \$70 billion to \$73 billion, narrowed from prior guidance for \$68 billion to \$73 billion. Capital expenditures are projected to be in the range of \$19 billion to \$21 billion, down from previous targets of \$21 billion to \$23 billion. For a consecutive quarter, the company chafed at Apple's platform privacy changes, which will allow iPhone and iPad users to stop companies from tracking certain user data, noting that it expects those headwinds in the current guarter.

Zuckerberg kicked off the call by noting that he is "very worried" about the COVID-19 pandemic outbreaks in India and Brazil, before switching gears to the company's commitment to augmented reality and virtual reality. He said the wireless aspect of the Oculus Quest 2 was "key," explored the idea of expanding beyond gaming, and touted the social aspects of AR and VR platforms. In broadening the market for immersive media, Zuckerberg noted that the form factor constraints are lower in virtual reality than in augmented reality, adding that in AR, "you're going to need a pair of glasses that really look like a normal pair of glasses to reach mainstream acceptance."

On the commerce front, execs on the call touted the more than 1 billion people who use Facebook's Marketplace platform every month.

Separately, in response to an analyst question about Facebook's more controversial content, for which the social media giant receives a great deal of criticism, Zuckerberg attempted to rebut critiques that Facebook optimizes its system to increase user time on its news feed.

"We don't want extremist content or any of that stuff on our service," he added. "On the contrary of trying to promote that, we go out of our way to try to reduce that... It is in our business interest to reduce it... Consumers don't like it, advertisers don't want to be near it."

Document VARTY00020210428eh4s000p5



# Facebook Technologies LLC; Patent Issued for Virtual Reality Garment Capable Of Jamming User Movement (USPTO 10,976,826)

2,032 words 26 April 2021 Journal of Engineering JOENG 13277 English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 APR 26 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- According to news reporting originating from Alexandria, Virginia, by VerticalNews journalists, a patent by the inventors Keller, Sean Jason (Bellevue, WA); Trutna, Tristan Thomas (Seattle, WA); Ochs, Garett Andrew (Seattle, WA); Luanava, Selso (Woodinville, WA); Corson, Nicholas Roy (Woodinville, WA), filed on November 25, 2019, was published online on April 26, 2021.

The assignee for this patent, patent number 10,976,826, is Facebook Technologies LLC (Menlo Park, California, United States).

Reporters obtained the following quote from the background information supplied by the inventors: "Virtual reality (VR) systems typically provide multiple forms of sensory output, such as a VR headset and headphones, which operate together to create the illusion that a user is immersed in a virtual world. A VR system can also include an input device such as a VR glove that detects position, acceleration, orientation, and other information associated with the user's hand and provides the information as input. The input can then be used to move a corresponding item in the virtual world (e.g., a hand or other appendage belonging to a character in the virtual world) when the glove detects movement of the user's hand in the real world. A VR glove can also be used to facilitate interactions with other objects in the virtual world. For example, the VR system can allow the user to use the glove to manipulate virtual objects by touching them, picking them up, and moving them."

In addition to obtaining background information on this patent, VerticalNews editors also obtained the inventors' summary information for this patent: "To further improve the illusion that the user is manipulating virtual objects, a VR glove includes a haptic feedback mechanism that jams the movement of the user's hand by increasing the rigidity of certain portions of the glove or by preventing a certain portion of the glove from expanding past a certain length. This allows the glove to simulate the physical sensation that occurs when touching an object. For example, to simulate the sensation of holding a coffee mug, the haptic feedback mechanism prevents the user from curling his fingers any further after his fingers have reached a position equivalent to making physical contact with the coffee mug."

The claims supplied by the inventors are:

"What is claimed is:

- "1. A system comprising: a console coupled to an electronic display in a head mounted display, the console configured to provide content to the electronic display for presentation to a user; and a glove configured to be worn on a hand of the user and coupled to the console, the glove comprising: one or more sensors configured to detect spatial and motion information about the glove and to provide the detected spatial and motion information to the console, and at least one jamming system coupled to the console, the jamming system comprising: a tendon coupled to a portion of the glove, the tendon having a plurality of inner filaments coupled to a surface of the tendon and protruding from the surface of the tendon; and a sheath enclosing the tendon, the sheath having one or more outer filaments coupled to an interior surface of the sheath and protruding from the interior surface of the sheath and configured to press the one or more outer filaments against the one or more inner filaments of the tendon in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors.
- "2. The system of claim 1, wherein the jamming system further comprises: a bladder enclosing at least a portion of an outer surface of the sheath and configured to receive a fluid in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors, the bladder applying an inward force to press the one or more outer filaments against the one or more inner filaments of the tendon in response to receiving the fluid.

- "3. The system of claim 1, wherein the jamming system further comprises: a conductive plate positioned on a side of the sheath; and an additional conductive plate positioned on an additional side of the sheath, the additional conductive plate parallel to the conductive plate and the conductive plate configured to receive a positive charge in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors and the additional conductive plate configured to receive a negative charge in response to the jamming system receiving information from the console to counteract the movement detected by one or more sensors.
- "4. The system of claim 1, wherein the jamming system further comprises: a magnet coupled to the one or more outer filaments of the sheath; and a coil coupled to the one or more inner filaments of the tendon, the coil configured to receive a current in response to the jamming system receiving information from the console to counteract the movement detected by one or more sensors.
- "5. The system of claim 1, wherein an inner filament protrudes from the surface of the tendon by a different amount than another inner filament.
- "6. The system of claim 1, wherein an outer filament protrudes from the interior surface of the sheath by a different amount than another outer filament.
- "7. An apparatus comprising: a garment including material configured to be worn on a portion of a body of a user; one or more sensors coupled to one or more portions of the material, the one or more sensors configured to detect spatial and motion information and to provide the detected spatial and motion information to a console, and at least one jamming system coupled to the console, the jamming system comprising: a tendon coupled to a portion of the garment, the tendon having a plurality of inner filaments coupled to a surface of the tendon and protruding from the surface of the tendon; and a sheath enclosing the tendon, the sheath having one or more outer filaments coupled to an interior surface of the sheath and protruding from the interior surface of the sheath and configured to press the one or more outer filaments against the one or more inner filaments of the tendon in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors.
- "8. The apparatus of claim 7, wherein the jamming system further comprises: a bladder enclosing at least a portion of an outer surface of the sheath and configured to receive a fluid in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors, the bladder applying an inward force to press the one or more outer filaments against the one or more inner filaments of the tendon in response to receiving the fluid.
- "9. The apparatus of claim 7, wherein the jamming system further comprises: a conductive plate positioned on a side of the sheath; and an additional conductive plate positioned on an additional side of the sheath, the additional conductive plate parallel to the conductive plate and the conductive plate configured to receive a positive charge in response to the jamming system receiving information from the console to counteract the movement detected by the one or more sensors and the additional conductive plate configured to receive a negative charge in response to the jamming system receiving information from the console to counteract the movement detected by one or more sensors.
- "10. The apparatus of claim 7, wherein the jamming system further comprises: a magnet coupled to the one or more outer filaments of the sheath; and a coil coupled to the one or more inner filaments of the tendon, the coil configured to receive a current in response to the jamming system receiving information from the console to counteract the movement detected by one or more sensors.
- "11. The apparatus of claim 7, wherein an inner filament protrudes from the surface of the tendon by a different amount than another inner filament.
- "12. The apparatus of claim 7, wherein an outer filament protrudes from the interior surface of the sheath by a different amount than another outer filament.
- "13. An apparatus comprising: a glove configured to be worn on a hand of a user, the glove comprising one or more sensors configured to detect spatial and motion information about the glove, and at least one jamming system comprising: a tendon coupled to a portion of the glove, the tendon having a plurality of inner filaments coupled to a surface of the tendon and protruding from the surface of the tendon; and a sheath enclosing the tendon, the sheath having one or more outer filaments coupled to an interior surface of the sheath and protruding from the interior surface of the sheath and configured to press the one or more outer filaments against the one or more inner filaments of the tendon in response to the jamming system receiving information to counteract movement detected by the one or more sensors.
- "14. The apparatus of claim 13, wherein the jamming system further comprises: a bladder enclosing at least a portion of an outer surface of the sheath and configured to receive a fluid in response to the jamming system receiving information to counteract the movement detected by the one or more sensors, the bladder applying

an inward force to press the one or more outer filaments against the one or more inner filaments of the tendon in response to receiving the fluid.

- "15. The apparatus of claim 13, wherein the jamming system further comprises: a conductive plate positioned on a side of the sheath; and an additional conductive plate positioned on an additional side of the sheath, the additional conductive plate parallel to the conductive plate and the conductive plate configured to receive a positive charge in response to the jamming system receiving information to counteract the movement detected by the one or more sensors and the additional conductive plate configured to receive a negative charge in response to the jamming system receiving information to counteract the movement detected by one or more sensors.
- "16. The apparatus of claim 13, wherein the jamming system further comprises: a magnet coupled to the one or more outer filaments of the sheath; and a coil coupled to the one or more inner filaments of the tendon, the coil configured to receive a current in response to the jamming system receiving information to counteract the movement detected by one or more sensors.
- "17. The apparatus of claim 13, wherein an inner filament protrudes from the surface of the tendon by a different amount than another inner filament.
- "18. The apparatus of claim 13, wherein an outer filament protrudes from the interior surface of the sheath by a different amount than another outer filament.
- "19. The apparatus of claim 13, wherein the one or more sensors are coupled to a console and the one or more sensors are configured to transmit the spatial and motion information about the glove to the console.
- "20. The apparatus of claim 19, wherein the jamming system is configured to receive information to counteract movement detected by the one or more sensors from a console coupled to the jamming mechanism."

For more information, see this patent: Keller, Sean Jason; Trutna, Tristan Thomas; Ochs, Garett Andrew; Luanava, Selso; Corson, Nicholas Roy. Virtual Reality Garment Capable Of Jamming User Movement. U.S. Patent Number 10,976,826, filed November 25, 2019, and published online on April 26, 2021. Patent URL: <a href="http://patft.uspto.gov/netacgi/nph-">http://patft.uspto.gov/netacgi/nph-</a>

 $\frac{Parser?Sect1=PTO1\&Sect2=HITOFF\&d=PALL\&p=1\&u=\%2Fnetahtml\%2FPTO\%2Fsrchnum.htm\&r=1\&f=G\&l=50\&s1=10,976,826.PN.\&OS=PN/10,976,826RS=PN/10,976,826$ 

Keywords for this news article include: Business, Facebook Technologies LLC.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document JOENG00020210426eh4q0025b



#### FacebookGaming Recorded Over 1B Hours Watched In Q1 2021- 91% YoY Increase

585 words 26 April 2021 M2 Presswire MTPW English

© 2021, M2 Communications. All rights reserved.

Facebook Gaming's increasing popularity has done extremely well to catch up with established competitors and is now one of the fastest rising streaming platforms globally. According to data presented by Safe Betting Sites, Facebook Gaming experienced a 91% YoY increase in Q1 2021 after viewership surpassed 1B hours for the first time in a quarter.

FB.GG Records Over 1B Hours Watched In A Quarter

Facebook Gaming(FB.GG) was launched in 2018 as the social network's platform for gaming live streams where gamers and fans interact. When FB.GG was first launched, it had the unenviable task of entering a market that already had established platforms such as Twitch and Youtube Gaming, Nevertheless, FB.GG found almost immediate success and is now gaining ground on its main competitors.

In the first quarter of 2021, FB.GG logged a total of 1,057B hours watched of streaming content on the platform, the first time it crossed the billion-hour mark for a quarter. Q1 2021's figures are also a 91% YoY increase from Q1 2020 when total hours watched was just at 554M.

Viewership in the first quarter of 2021 also increased by 156 million hours compared to the previous quarter giving it a 17% QoQ increase from Q4 2020. In terms of average concurrent viewers, FB.GG recorded 480K in Q1 2021, compared to just 408K the previous quarter – a 20% QoQ increase. The figure is also a 91% YoY increase from 2020 Q1's 256K average concurrent viewer count.

Streaming On FB.GG On The Rise

The number of video game content streamed on the platform is also well on the rise. An estimated total of 19.5M hours was streamed on FB.GG in Q1 2021, an increase of about 5 million hours compared to the previous quarter for a 34.5% QoQ increase. Even more remarkably, the figure from the first quarter of 2021 is almost a 300% YoY increase compared to the figure in Q1 2020.

The number of unique channels on the platform also increased significantly in the first quarter of 2021 reaching an all-time high of 1.56M compared to 1.16M the previous quarter – a 32.8% QoQ increase.

Facebook Gaming To Surpass YouTube Gaming In 2021

Despite its young age relative to its competitors, Facebook Gaming has firmly established itself as one of the streaming industry's leading platforms.

Rex Pascual, Esports editor at Safe Betting Sites commented;

"Facebook Gaming has grown by leaps and bounds since its launch in 2018. The strength of the FB brand and network combined with the lockdowns of the pandemic stricken 2020, gave the platform the ability to grow rapidly in a short amount of time. Based on the current figures from Q1 2021, FB.GG looks set to overtake YouTube Gaming as Twitch's closest rival within the calendar year."

You can read more about the story with more statistics and information at: <a href="https://www.safebettingsites.com/2021/04/26/facebook-gaming-recorded-over-1b-hours-watched-in-q1-2021-91-yoy-increase/">https://www.safebettingsites.com/2021/04/26/facebook-gaming-recorded-over-1b-hours-watched-in-q1-2021-91-yoy-increase/</a>

Contact: Rex Pascual

SafeBettingSites.com

St. Magnus House

3 Lower Thames Str

London

EC3R 6H

Rex@finixio.com

((M2 Communications disclaims all liability for information provided within M2 PressWIRE. Data supplied by named party/parties. Further information on M2 PressWIRE can be obtained at <a href="http://www.m2.com">http://www.m2.com</a> on the world wide web. Inquiries to info@m2.com)).

Document MTPW000020210426eh4q007y6

#### **Features**

## Get help claiming gaming's holy grail; Michigan man starts Facebook group to aid in PS5 quest

By Nour Rahal Detroit Free Press | USA TODAY NETWORK 1,232 words 24 April 2021 Lansing State Journal LANS 1; LSJ B6 English

© Copyright 2021, Lansing State Journal. All Rights Reserved.

It's the Holy Grail of gaming systems, and Ameer Assaf is on the hunt.

Assaf, 31, of Flushing in suburban Flint, Michigan, considers himself a master at scoring the elusive PlayStation 5.

Released on Nov. 12, 2020, the PS5 has been virtually impossible to find for most consumers thanks to robots, resellers, chip shortages and a frenzied demand to stay entertained during the COVID-19 pandemic. Priced at \$499.99, the units are in such hot demand that they are selling for almost double the price on places like Facebook Marketplace or eBay.

Assaf, who has worked in the IT industry for about eight years, spends his days monitoring retail store stock. He can tell when the PS5 is in stock or when it is going live.

And some 16,000 members of his privateFacebook group, PS5 Restock Updates & Alerts, follow in eager anticipation of news on any restocks or buying tips. An online chat room on Discord was also created in February to keep members connected.

To his friends' envy, Assaf landed his own PS5 the old-fashioned way: preordering a console back in September. When it arrived in the mail in November, he was one of the lucky few to own a PS5.

"That's when I decided to start a Facebook group instead of messaging them all individually when it was back in stock," Assaf said.

To avoid scam websites, Assaf only alerts his members of any PS5 restocks at Target, BestBuy, GameStop, Walmart, Amazon, Sam's Club, Costco and Sony Direct. Many members from across the country have reported back to him with their success — like Dwain Bennett of Milan.

"The best way I got one was to be a part of a group that has consistent updates on when they release and then to be very consistent after finding out about every release," Bennett said. "After I joined a group with consistent updates, it took about a week to secure one."

Bennet got his console from Walmart, but It was still a difficult task, he said. The site kept crashing and "was very glitchy."

"Consoles released in waves every 10 minutes. It took me an hour and forty minutes to secure it," Bennett said. "It all worked out but the site had issues with accepting card payments and selling out too fast. Staying persistent helped but it's totally mostly luck if the site decides for you to proceed."

Each store restocks once every one to twoweeks, Assaf said. Due to a shortage in chips that power a variety of technological products, the restocking of PS5s has been decreasing.

"There's currently an ongoing global semiconductor chip shortage, and COVID-19 has shut down many factories who create these parts for the PS5," Assaf said. "With people saying at home, the demand for these parts has only gone up, whether it's for like a laptop or a desktop computer or a mobile device, or in our case, a video game console. I personally believe this shortage is going to continue all the way into 2022."

Another issue is "resellers and botters," Assaf said. Many people are taking advantage of the supply and demand shortage by purchasing one or multiple consoles and reselling them at much higher prices on third-party sites like eBay. Facebook marketplace. StockX and Mercari.

Consumers like Hussein Baydoun bought the PS5 through Facebook Marketplace for \$750 and regretted it, he said. Like many others, he attempted to buy a PS5 directly from Sony but was unable to.

"I had it in my cart, I bought it, and then I guess we didn't have it anymore," Baydoun said. "I tried maybe 14 or 15 different times."

Sears Marketplace works with Entrotek, another third-party seller, to sell the PS5 bundles. The bundle includes the PS5 console plus add-ons like headphones, games, and other accessories.

People even use robots to create hundreds of accounts that purchase as many consoles as possible, Assaf said. Instead of one person trying to purchase one console, one "botter" mimics 100 people at once, going into the site and purchasing multiple devices.

Wayne State University student Mohamad Soueidan has been searching for the console since its release last November and is also aware of the robot issue.

"The bots can basically place the order for you," Soueidan said. "Some of them change your VPN so if the site says you can't order more than once to your address, then they mess with it and order like up to 20 or something — depending on how many bots you have."

One University of Michigan student in Ann Arbor said she got lucky and managed to buy a PS5 online during a Sony release by roping in friends and family.

She asked about 10 people to wait online and attempt to buy one as soon as the release dropped, and one person managed to pull it off, she said. She got it as a birthday gift for a friend.

Others who have not been as lucky, continuously check for restocks online and on social media, like Facebook and Twitter.

"I look online, I look at Twitter, because there's a lot of accounts that share that information on when the next drop is going to be at certain stores," Soueidan said.

Assaf lists a release guide for each retailer in his Facebook group. The guides "walk people through how to purchase the PS5 on a specific website because every website is different and every website will have its own issues," he said. "There's just different tips and tricks that I try to teach them in the release guide to help them purchase the PS5 and we've been very successful. I mean I've helped thousands of people secure a PlayStation 5."

Some tips from Assaf's Facebook groupthat consumers are encouraged to follow are:

Turn on post notifications for update groups you are in. This will ensure that you are immediately notified of any restocks or alerts

Ask about any suspicious websites before purchasing your PS5. Assaf recommends that his members ask him about a console on a suspicious website, that he has not recommended, before buying to determine whether it is real or not

Sign in using your account(s) and have payment and shipping information saved in advance. Signing in and preparing your personal information instead of purchasing the console as a 'guest' will ensure a quicker process. Some websites need an account for checkout

Use multiple devices, not multiple tabs. Ask friends and family members for help on their own devices instead of opening multiple tabs

Stay persistent. The website might crash multiple times or say that it is out of stock before it actually is. Keep trying until you possibly get through

Contact Nour Rahal: nrahal@freepress.com and follow her on Twitter @nrahal1.

Ameer Assaf of Flushing created a Facebook group called PS5 Restock Updates & Alerts that helps people stay updated on PS5 restocks and avoid scammers. Assaf got back into video gaming after having health issues this past year and has grown the group from four members to over 16,000 members online by word of mouth. | Ryan Garza/Detroit Free Press

Document LANS000020210424eh4o0002t

DAVIDS HOLDS FACEBOOK LIVE WITH U.S. SBA DISTRICT DIRECTOR TO DISCUSS THE RESTAURANT REVITALIZATION FUND; The virtual event will show local owners how to apply for the new funding opportunity; Rep. Sharice Davids (D-KS) News Release

384 words
23 April 2021
Congressional Documents and Publications
CONGDP
English

(c) 2021 Federal Information & News Dispatch, Inc.

Today, Representative Sharice Davids will host a Facebook Live webinar on the Restaurant Revitalization Fund. Michael L. Barrera, District Director for the U.S. Small Business Administration in Kansas City, will join Davids to provide information on the program and walk through how local restaurants can apply.

The virtual event will be hosted on Davids' Facebook Page today, April 23 at 10:15am CT.

"During my American Rescue Plan Tour, I met with local small business and restaurant owners who were forced to cut wages, lay off employees, and even close their doors because of the pandemic," said Davids. "Because of the American Rescue Plan, the Restaurant Revitalization Fund is available to support restaurant owners as they rebuild. This direct funding will allow restaurants in Kansas to build back better. I encourage anyone who qualifies to apply early."

The Restaurant Revitalization Fund, as established through the American Rescue Plan, will provide funding to help restaurants and other eligible businesses keep their doors open. The funding assistance will be equal to their pandemic-related revenue loss up to \$10 million per business and no more than \$5 million per physical location. Recipients are not required to repay the funding as long as funds are appropriately used before March 11, 2023. The SBA is prioritizing businesses owned by underserved communities. Those who qualify can find more information on how to apply at the SBA's website.

The American Rescue Plan, which Davids voted to support, is putting shots in arms, children back in schools, and people in jobs. It's also putting money in pockets through \$1,400 Economic Impact Payments. The American Rescue Plan bolsters the Paycheck Protection Program with an additional \$7.25 billion in funding, extends pandemic-related unemployment benefits, and dedicates about \$50 billion to bolstering grants and loans for small businesses still navigating the economic fallout of the pandemic.

For information on how the American Rescue Plan directly helps Kansas, visit Davids' resource page.

Read this original document at:

https://davids.house.gov/media/press-releases/davids-holds-facebook-live-us-sba-district-director-discuss-restaurant

Document CONGDP0020210425eh4n00012

Drugs and Therapies - Adverse Drug Reactions; Study Findings from Aalborg University Broaden Understanding of Adverse Drug Reactions (System Immersion in Virtual Reality-Based Rehabilitation of Motor Function in Older Adults: A Systematic Review and Meta-Analysis)

636 words 23 April 2021 Drug Week DRGW 7183 English

© Copyright 2021, Drug Week via NewsRx.com

2021 APR 30 (NewsRx) -- By a News Reporter-Staff News Editor at Drug Week -- New study results on adverse drug reactions have been published. According to news reporting out of Copenhagen, Denmark, by NewsRx editors, research stated, "As the elderly population continues to grow, so does the demand for new and innovative solutions to tackle age-related chronic diseases and disabilities. Virtual Reality (VR) has been explored as a novel therapeutic tool for numerous health-related applications."

The news editors obtained a quote from the research from Aalborg University: "Although findings frequently favors VR, methodological shortcomings prevent clinical recommendations. Moreover, the term 'VR' is frequently used ambiguously to describe e.g., video games; the distinction remains vague between immersive VR (IVR) systems and non-immersive VR (NVR). With no distinct demarcation, results of outcome measures are often pooled in meta-analyses, without accounting for the immersiveness of the system. This systematic review focused on virtual reality-based rehabilitation of older adults (+60) in motor rehabilitation programs. The review aims to retrospectively classify previous studies according to the level of immersion, in order to get an overview of the ambiguity-phenomenon, and to utilize meta-analyses and subgroup analyses to evaluate the comparative efficacy of system immersion in VR-based rehabilitation. Following PRISMA guidelines, we conducted a systematic search for randomized controlled trials, describing virtual rehabilitation or video games interventions for older adults (+60). Main outcomes were pain, motivation, mobility, balance, and adverse events. We identified 15 studies which included 743 patients. Only three studies utilized IVR. The rest used various NVR-equipment ranging from commercial products (e.g., Nintendo Wii), to bespoke systems that combine tracking devices, software, and displays. A random effects meta-analysis of 10 studies analyzed outcome measures of mobility, balance, and pain. Protocols and dosage varied widely, but outcome results were in favor of immersive and non-immersive interventions, however, dropout rates and adverse events were mostly in favor of the control."

According to the news editors, the research concluded: "We initialize a call-for-action, to distinguish between types of VR-technology and propose a taxonomy of virtual rehabilitation systems based on our findings. Most interventions use NVR-systems, which have demonstrably lower cybersickness-symptoms than IVR-systems. Therefore, adverse events may be under-reported in RCT-studies. An increased demand for IVR-systems highlight this challenge. Care should be given, when applying the results of existing NVR tools to new IVR-technologies. Future studies should provide more detail about their interventions, and future reviews should differentiate between NVR and IVR."

For more information on this research see: System Immersion in Virtual Reality-Based Rehabilitation of Motor Function in Older Adults: A Systematic Review and Meta-Analysis. Frontiers in Virtual Reality, 2021,2. The publisher for Frontiers in Virtual Reality is Frontiers Media S.A.

A free version of this journal article is available at <a href="https://doi.org/10.3389/frvir.2021.647993">https://doi.org/10.3389/frvir.2021.647993</a>.

Our news journalists report that additional information may be obtained by contacting Emil Rosenlund Hoeg, Multisensory Experience Lab, Department of Architecture, Design and Media Technology, Technical Faculty of IT and Design, Aalborg University, Copenhagen, Denmark. Additional authors for this research include Tina Myung Povlsen, Jon Ram Bruun-Pedersen, Belinda Lange, Niels Christian Nilsson, Kristian Birkemose Haugaard, Sune Molgard Faber, Soren Willer Hansen, Charlotte Kira Kimby, Stefania Serafin.

Keywords for this news article include: Aalborg University, Copenhagen, Denmark, Europe, Pharmaceuticals, Video Game, Electronics, Rehabilitation, Drugs and Therapies, Health and Medicine, Adverse Drug Reactions.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document DRGW000020210423eh4n000o6



#### Facebook Inc. - Oculus Gaming Showcase: New Game Trailers and More

Facebook Inc. published this content on 21 Apr 2021 and is solely responsible for the information contained herein. Distributed by PUBT, unedited and unaltered, on 21 Apr 2021 22:18:15 UTC. 808 words

21 April 2021

Public Companies News and Documents via PUBT

**LCDVP** 

English

Copyright 2021. As included in the Information

\* Original document

Oculus Gaming Showcase: New Game Trailers and More

With the launch of Oculus Quest 2 and the release of several games, 2020 was a banner year for virtual reality. And 2021 is shaping up to be jam-packed with similar momentum. Today, we celebrated how far VR has come - and all the amazing places it's about to go - with the first ever Oculus Gaming Showcase.

Here's some highlights from today's news.

Pistol Whip: Smoke & Thunder + The Concierge

<u>Cloudhead Games</u> is back with a new five-scene, narrative-driven and action-packed campaign for <u>Pistol Whip</u>. Smoke & Thunder tells the tale of two sisters set in the Wild West where trains, tech and explosions set the scene for some exciting surprises.

This update will release alongside The Concierge, which will unlock total customization for Pistol Whip players. Compete in the ever-changing featured styles with multi-platform leaderboards, or dive in and build your own.

Look for Pistol Whip: Smoke & Thunder and The Concierge to hit the Quest and Rift Platforms this summer.

Warhammer 40,000: Battle Sister Multiplayer Update

Following up on last month's 'Last Bastion' update, which brought horde mode to Warhammer 40,000: Battle Sister, Pixel Toys made a few more updates.

Firstly co-op play has been added to the 'Last Bastion' game mode. Also starting today, <u>it's available on Rift</u>, so you and your friends can team up to play 'Last Bastion' together. On top of that, there are two brand new maps to enjoy with cross-play and cross-buy support for the <u>Quest</u> and <u>Rift</u> Platforms.

Lone Echo II Launching This Summer

Jack and Liv return in Lone Echo II, launching this summer on the Rift Platform and for those playing on the Quest Platform with Oculus Link or Air Link.

Resident Evil 4 Coming to Quest 2 Later This Year

In <u>Capcom</u> 's Resident Evil Showcase digital program last week, fans learned that <u>Resident Evil 4</u> is coming to VR, exclusively for the Quest 2. Today, we shared new footage and additional details about the game.

Star Wars: Tales From the Galaxy's Edge Part II

<u>ILMxLAB</u> is hard at work on the next installment of <u>Star Wars: Tales From the Galaxy's Edge</u>, which expands the core adventure and will feature two more legendary Tales for fans to enjoy.

Today, we revealed one of the characters you'll get to meet in Part II: Dok-Ondar, a visitor from the Den of Antiquities. The studio also shared a brand new piece of concept art featuring the mysterious Ithorian and his translation droid, set in Seezelslak's Cantina.

#### [Link]

Behind the Scenes of Star Wars Pinball VR

Page 125 of 148 © 2022 Factiva, Inc. All rights reserved.

<u>Star Wars Pinball VR</u> launches on the Quest Platform, PSVR, and SteamVR next week, and today we shared some behind-the-scenes footage to show how the experience came to life in VR.

Star Wars Pinball VR launches April 29.

I Expect You To Die 2 Coming to the Quest and Rift Platforms

Schell Games is returning with a sequel to their popular, spy-themed VR puzzler, I Expect You To Die .

I Expect You To Die 2: The Spy and the Liar is coming to the Quest and Rift Platforms later this year.

Introducing Carve Snowboarding

<u>1080° Snowboarding</u> defined a genre of extreme sports games. Now, creator Giles Goddard returns with <u>Chuhai Labs</u> to bring you a modern take on this Nintendo 64 classic: Carve Snowboarding .

Wraith: The Oblivion - Afterlife Launch Trailer

Set in the World of Darkness, <u>Wraith: The Oblivion - Afterlife</u> is a horror and exploration game launching tomorrow on the Quest and Rift Platforms. Today, we debuted the new launch trailer from <u>Fast Travel Games</u>

The Climb 2 Update

<u>Crytek</u> 's recent follow-up to VR classic <u>The Climb</u>, <u>The Climb</u> 2 features free solo climbing in breathtaking landscapes and with the thrill of leaderboard competition. And tomorrow, they're launching a new Freestyle Expansion Pack.

We're also introducing rhythm-based climbing where you'll see disappearing grips along your route, requiring you to learn the grip patterns to the beat of a background track to progress through.

Don't miss this free update when it launches tomorrow.

For a full rundown of today's news visit the <u>Oculus Blog.</u> You can also check out the Oculus Store for ourShowcase Flash Sale, as well asnew collections and game bundles.

Disclaimer

Facebook Inc. published this content on 21 April 2021 and is solely responsible for the information contained therein. Distributed by <u>Public</u>, unedited and unaltered, on 21 April 2021 22:21:22 UTC.

Document LCDVP00020210421eh4l00pru

Health and Medicine - Clinical Medicine; Research on Clinical Medicine Described by Researchers at University of Bath (Virtual Reality in Neurorehabilitation: An Umbrella Review of Meta-Analyses)

464 words 16 April 2021 Genomics & Genetics Weekly GEWK 5431 English

© Copyright 2021 Genomics & Genetics Weekly via NewsRx.com

2021 APR 23 (NewsRx) -- By a News Reporter-Staff News Editor at Genomics & Genetics Weekly -- Investigators publish new report on clinical medicine. According to news originating from Bath, United Kingdom, by NewsRx editors, the research stated, "Neurological disorders are a leading cause of death and disability worldwide."

Our news reporters obtained a quote from the research from University of Bath: "Can virtual reality (VR) based intervention, a novel technology-driven change of paradigm in rehabilitation, reduce impairments, activity limitations, and participation restrictions? This question is directly addressed here for the first time using an umbrella review that assessed the effectiveness and quality of evidence of VR interventions in the physical and cognitive rehabilitation of patients with stroke, traumatic brain injury and cerebral palsy, identified factors that can enhance rehabilitation outcomes and addressed safety concerns. Forty-one meta-analyses were included. The data synthesis found mostly low- or very low-quality evidence that supports the effectiveness of VR interventions. Only a limited number of comparisons were rated as having moderate and high quality of evidence, but overall, results highlight potential benefits of VR for improving the ambulation function of children with cerebral palsy, mobility, balance, upper limb function, and body structure/function and activity of people with stroke, and upper limb function of people with acquired brain injury. Customization of VR systems is one important factor linked with improved outcomes. Most studies do not address safety concerns, as only nine reviews reported adverse effects."

According to the news editors, the research concluded: "The results provide critical recommendations for the design and implementation of future VR programs, trials and systematic reviews, including the need for high quality randomized controlled trials to test principles and mechanisms, in primary studies and in meta-analyses, in order to formulate evidence-based guidelines for designing VR-based rehabilitation interventions."

For more information on this research see: Virtual Reality in Neurorehabilitation: An Umbrella Review of Meta-Analyses. Journal of Clinical Medicine, 2021,10(1478):1478. (Journal of Clinical Medicine - <a href="http://www.mdpi.com/journal/jcm">http://www.mdpi.com/journal/jcm</a>). The publisher for Journal of Clinical Medicine is MDPI AG.

A free version of this journal article is available at <a href="https://doi.org/10.3390/jcm10071478">https://doi.org/10.3390/jcm10071478</a>.

Our news journalists report that more information may be obtained by contacting Alexandra Voinescu, Department of Psychology, University of Bath, 10 West, Claverton Down, Bath BA2 7AY, United Kingdom. Additional authors for this research include Jie Sui, Danae Stanton Fraser.

Keywords for this news article include: University of Bath, Bath, United Kingdom, Europe, Clinical Medicine, Health and Medicine, Neurorehabilitation.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx I I  $\,$ C

Document GEWK000020210416eh4g0003n

# Adjust GmbH; Facebook and Adjust on the Global App Economy: Gaming and Entertainment Top Growth Verticals

214 words 16 April 2021 Economics Week ECOWEK 100 English

© Copyright 2021 Economics Week via VerticalNews.com

2021 APR 23 (VerticalNews) -- By a News Reporter-Staff News Editor at Economics Week -- Adjust, the global app marketing platform, released its second global Mobile App Growth Report, in collaboration with Facebook\*. Charting app growth and retention trends in 2020, the report demonstrates the extraordinary resilience of the app economy, with the strongest growth in APAC, MENA and South America. Gaming is the world's fastest-growing vertical, led by Argentina, while India tops the charts as the fastest-growing region.

Using its own Growth Score, Adjust created a global map to highlight mobile app trends outside big, mature markets - showing app marketers where the highest growth potential can be found.

"Now more than ever, mobile marketers need a roadmap to identify just the right users, in just the right locales, at just the right points in their journey," said Andrey Kazakov, Chief Operations Officer of Adjust. "Adjust's data, coupled with Facebook's insights into user preferences and actions, enables marketers to target and retain their most highest-value users."

Keywords for this news article include: Business, Economies, Adjust GmbH.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document ECOWEK0020210416eh4g0001m



Leisure

Live gaming of classic handheld toy on Facebook goes viral

526 words 14 April 2021 Manila Bulletin MABULL English

(c) 2021 Manila Bulletin Publishing Corp. All rights reserved.

Even different mobile games like Call of Duty, Mobile Legend, NBA 2K are among the most popular content on Facebook live gaming, streamer Seagal Pamanano thought of playing a classic water game toy on his live stream for a change. And believe it or not, his ring toss stunts garnered a stable ten thousand live viewers and fifty thousand plus likes, comments, and shares. Not to mention that it hit 1.5 million views after his live feed on April 11, 2021, 6-9:30 p.m.

#### https://www.facebook.com/toymangaming/videos/181332823709502

More than getting entertained, many viewers got nostalgic with the handheld water ring toss they used to play as a kid. Who would forget getting addicted shooting those tiny rings on the pins?

Seagal, who's also known for his nickname Toy, hence naming his page Toyman Gaming, started streaming Call of Duty last year when the lockdown began in March, but live gaming doesn't work well in his favor.

According to Seagal, most of the time, he himself is his only viewer even though he already has more than 300 followers. And he didn't expect that playing his seven-year-old son's toy online would multiply his followers. As of writing, he gained 7,800 followers from stacking those colorful rings.

"Tuwang tuwa na ako noong may 10 viewers, nagulat ako ng biglang naging libo. Gusto ko lang po talagang ipakita na buhay pa pala ang ganitong laruan at masarap pa rin laruin. (I was so happy when I had 10 viewers, but I was surprised when they became thousands. I just wanted to show that this toy still exists, and still, is fun to play)," Seagal told Manila Bulletin Lifestyle Online.

Indeed, this game that enhances eye-hand coordination is still appealing to all ages. No wonder that this 27-year-old gamer, who called his unique stream "Call of Spidey" because of the toy's Spiderman design, didn't mind playing for more than two hours. Equipped with thumb sleeves, he said that he could have played an hour more if the cell phone he had used for filming did not die on him.

Many encouraged Seagal to continue what he is doing because he provides enjoyment that is although old school becomes unusual nowadays since almost everyone plays on their mobile gadgets.

Reading the comments and hearing his reply is an additional boredom killer. They were those who were asking the specs of the device, what level is he already, his settings, and other stuff relating to mobile gaming that also he had fun replying to with witty answers.

Seagal said that some supporters were able to send stars in the first hour, but he didn't know why the star button suddenly disappeared. Nevertheless, he hopes that his new thousand followers will continue their support on his next streams.

The young family man is glad that besides starting a new job as a helper on a trucking service, he might be able to earn extra on his Facebook gaming content during these hard times.

Document MABULL0020210413eh4e0002t

Cerebrovascular Diseases and Conditions - Stroke; Researchers from Capital Medical University Report Findings in Stroke (Virtual Reality for Limb Motor Function, Balance, Gait, Cognition and Daily Function of Stroke Patients: a Systematic Review and Meta-analysis)

562 words 12 April 2021 Clinical Trials Week CTRW 6092 English

© Copyright 2021 Clinical Trials Week via NewsRx.com

2021 APR 12 (NewsRx) -- By a News Reporter-Staff News Editor at Clinical Trials Week -- Research findings on Cerebrovascular Diseases and Conditions - Stroke are discussed in a new report. According to news reporting originating from Beijing, People's Republic of China, by NewsRx correspondents, research stated, "To explore the beneficial effects of virtual reality (VR) interventions on upper- and lower-limb motor function, balance, gait, cognition and daily function outcomes in stroke patients. A systematic review and meta-analysis of randomized controlled trials."

Financial support for this research came from Science Research Project of Chinese Nursing Association.

Our news editors obtained a quote from the research from Capital Medical University, "English databases (PubMed, EMBASE, the Cochrane Library, CINAHL, Web of Science, Physiotherapy Evidence Database, ProQuest Dissertations and Theses) and Chinese databases (Chinese BioMedical Literature Service System, WANFANG, CNKI) and the Clinical Trial Registry Platform were systematically searched from inception until December 2019. Additionally, reference lists of the included studies were manually searched. Review Methods The methodological quality of studies was scored with the Cochrane 'risk-of-bias tool' and PEDro scale from the Physiotherapy Evidence Database by two independent evaluators. In total, 87 studies with 3540 participants were included. Stroke patients receiving VR interventions showed significant improvements in Fugl-Meyer assessment of Upper Extremity, Action Research Arm Test, Wolf Motor Function Test, Fugl-Meyer Assessment of Lower Extremity, Functional Ambulation Classification, Berg Balance Scale, Time Up and Go, Velocity, Cadence, Modified Barthel Index and Functional Independence Measure. However, differences between VR intervention and traditional rehabilitation groups were not significant for Box-Block Test. 10 m Walk Test. Auditory Continuous Performance Test. Mini-Mental State Examination and Visual Continuous Performance Test. This review suggests that VR interventions effectively improve upper- and lower-limb motor function, balance, gait and daily function of stroke patients, but have no benefits on cognition. Impact This review identified the positive effects of VR-assisted rehabilitation on upper- and lower-limb motor function, balance, gait and daily function of stroke patients. And, we verified the duration of VR intervention affects some health benefits."

According to the news editors, the research concluded: "The benefit of VR on cognitive function requires further investigation through large-scale multicentre RCTs."

This research has been peer-reviewed.

For more information on this research see: Virtual Reality for Limb Motor Function, Balance, Gait, Cognition and Daily Function of Stroke Patients: a Systematic Review and Meta-analysis. Journal of Advanced Nursing, 2021. Journal of Advanced Nursing can be contacted at: Wiley, 111 River St, Hoboken 07030-5774, NJ, USA. (Wiley-Blackwell - <a href="https://www.wiley.com/">www.wiley.com/</a>; Journal of Advanced Nursing - onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-2648)

The news editors report that additional information may be obtained by contacting Qian Xiao, Capital Medical University, School of Nursing, Beijing 100069, People's Republic of China. Additional authors for this research include Bohan Zhang, Yue Liu, Dan Li and Jiani Wang.

Keywords for this news article include: Beijing, People's Republic of China, Asia, Cerebrovascular Diseases and Conditions, Health and Medicine, Stroke, Capital Medical University.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document CTRW000020210412eh4c000a1



Info-tech

TikTok, Facebook most downloaded non-gaming apps in March: Report

Hemani Sheth 266 words 11 April 2021 BusinessLine Online BSNLNO English © 2021 THG Publishing Pvt. Ltd.

Mumbai, April 11 Info-tech

India had the highest number of installs for the game at 36.6 per cent, followed by Brazil at 7.6 per cent.

TikTok was the most downloaded non-gaming app worldwide for March 2021, according to data from Sensor Tower.

As per Sensor Tower, the app clocked more than 58 million installs last month. Douyin in China had the largest number of TikTok installs at 11 per cent, followed by the United States at 10 per cent.

TikTok was followed by Facebook as the second most installed non-gaming app worldwide with more than 56 million installs. India accounted for the highest number of installs for the app at 25 per cent, followed by the US at 8 per cent. The top five most downloaded non-gaming apps globally also included Instagram, WhatsApp, and Messenger.

In terms of mobile games, Join Clash 3D from Supersonic Studios was the most downloaded mobile game worldwide for March 2021 with 27.6 million installs, an increase of more than 3 times from March 2020.

India had the highest number of installs for the game at 36.6 per cent, followed by Brazil at 7.6 per cent.

Crash Bandicoot: On the Run from King was the second most installed mobile game globally in March 2021 with nearly 27 million installs. Garena Free Fire from Garena, High Heels from Zynga, and Among Us from InnerSloth rounded out the top five most installed mobile games worldwide for the month, the report said.

Document BSNLNO0020210411eh4b000b9

# Facebook Technologies LLC; Patent Application Titled "Generating And Modifying Representations Of Objects In An Augmented-Reality Or Virtual-Reality Scene" Published Online (USPTO 20210090322)

4,063 words 8 April 2021 Politics & Government Week POLGOV 5071 English

© Copyright 2021 Politics & Government Week via VerticalNews.com

2021 APR 15 (VerticalNews) -- By a News Reporter-Staff News Editor at Politics & Government Week -- According to news reporting originating from Washington, D.C., by VerticalNews journalists, a patent application by the inventor Hunt, Warren Andrew (Woodinville, WA), filed on September 25, 2019, was made available online on March 25, 2021.

The assignee for this patent application is Facebook Technologies LLC (Menlo Park, California, United States).

Reporters obtained the following quote from the background information supplied by the inventors: "Artificial reality is a form of reality that has been adjusted in some manner before presentation to a user, which may include, e.g., a virtual reality (VR), an augmented reality (AR), a mixed reality (MR), a hybrid reality, or some combination and/or derivatives thereof. Artificial reality content may include completely generated content or generated content combined with captured content (e.g., real-world photographs). The artificial reality content may include video, audio, haptic feedback, or some combination thereof, any of which may be presented in a single channel or in multiple channels (such as stereo video that produces a three-dimensional effect to the viewer). Artificial reality may be associated with applications, products, accessories, services, or some combination thereof, that are, e.g., used to create content in an artificial reality and/or used in (e.g., perform activities in) an artificial reality. The artificial reality system that provides the artificial reality content may be implemented on various platforms, including a head-mounted display (HMD) connected to a host computer system, a standalone HMD, a mobile device or computing system, or any other hardware platform capable of providing artificial reality content to one or more viewers."

In addition to obtaining background information on this patent application, VerticalNews editors also obtained the inventor's summary information for this patent application: "Since its existence, artificial reality (e.g., AR, VR. MR) technology has been plaqued with the problem of latency in rendering AR/VR/MR objects in response to sudden changes in a user's perspective of an AR/VR/MR scene. To create an immersive environment, users may need to be able to move their heads around when viewing a scene and the environment may need to respond immediately by adjusting the view presented to the user. Each head movement may slightly change the user's perspective of the scene. These head movements may be small but sporadic and difficult (if not impossible) to predict. A problem to be solved is that the head movements may occur quickly, requiring that the view of the scene be modified rapidly to account for changes in perspective that occur with the head movements. If this is not done rapidly enough, the resulting latency may cause a user to experience a sensory dissonance that can lead to virtual reality sickness or discomfort, or at the very least, a disruption to the immersive nature of the experience. Re-rendering a view in its entirety to account for these changes in perspective may be resource intensive, and it may only be possible to do so at a relatively low frame rate (e.g., 60 Hz, or once every 1/60th of a second). As a result, it may not be feasible to modify the scene by re-rendering the entire scene to account for changes in perspective at a pace that is rapid enough (e.g., 200 Hz, once every 1/200th of a second) to prevent the user from perceiving latency and to thereby avoid or sufficiently reduce sensory dissonance.

"One solution involves generating and working with 'surfaces' that represent objects within the scene. In particular embodiments, graphics applications (e.g., games, maps, content-providing apps, etc.) may build a scene graph, which is used together with a given view position and point in time to generate primitives to render on a GPU. The scene graph may define the logical and/or spatial relationship between objects in the scene. In particular embodiments, a warp engine may also generate and store a scene graph that is a simplified form of the full application scene graph. The simplified scene graph may be used to specify the logical and/or spatial relationships between surfaces (e.g., the primitives rendered by a warp engine defined in 3D space, that have corresponding textures generated based on the mainframe rendered by the application). Storing a scene graph allows the warp engine to render the scene to multiple display frames, adjusting each element in the scene graph for the current viewpoint (e.g., head position), the current object positions (e.g., they could be moving relative to each other) and other factors that change per display frame. In addition, based on the scene graph, the warp engine may also adjust for the geometric and color distortion introduced by the display subsystem and then composite the objects together to generate a frame. Storing a

scene graph allows the warp engine to approximate the result of doing a full render at the desired high frame rate, while actually running the GPU at a significantly lower rate.

"A surface may correspond to one or more objects that are expected to move/translate, skew, scale, distort, or otherwise change in appearance together, as one unit, as a result of a change in perspective. Instead of re-rendering the entire view, a computing system may simply resample these surfaces from the changed perspective to approximate how a corresponding object would look from the changed perspective. This method may essentially be an efficient shortcut, and may significantly reduce the processing that is required. thus ensuring that the view is updated quickly enough to sufficiently reduce latency. Resampling surfaces, unlike re-rendering entire views, may be efficient enough that it can be used to modify views within the allotted time--e.g., in 1/200th of a second--with the relatively limited processing power of a computing system of an HMD. The time scales involved in this modification are so small that it may be unfeasible to have a more powerful system that is physically separated from the HMD (e.g., a separate laptop or wearable device) perform the modification, because the HMD would have to transmit information about the current position and orientation of the HMD, wait for the separate system to render the new view, and then receive the new view from the separate system. By simply resampling surfaces, the modification may be performed entirely on the HMD, thus speeding up the process. Although this disclosure uses particular time periods (1/60th of a second, 1/200th of a second) and corresponding particular frame rates (60 Hz, 200 Hz), these time periods and frame rates are used merely as examples to illustrate the invention, and the disclosure contemplates any other suitable time periods and frame rates.

"Embodiments of the invention may include or be implemented in conjunction with an artificial reality system. In particular embodiments, the processing tasks involved in rendering a scene and generating and modifying its surfaces may be split among two or more computing systems. As an example and not by way of limitation, a view of a scene may initially be rendered by a first computing system (e.g., a laptop, a cellphone, a desktop, or a wearable device) at a relatively low frame rate (e.g., 60 hz). The rendered results may be used to generate, by the first computing system or a second computing system, one or more surfaces (e.g., 16 surfaces) for an AR/VR scene. In addition to color and transparency information, the surfaces may include information about their position and orientation in the scene. This position and orientation information is used by a ray caster to determine how the surfaces should be displayed to the user based on a current position and angle of view of the user. These surfaces may then be processed by a warp engine on a second computing system (e.g., an onboard computing system on a head-mounted display (HMD)). The HMD may render the objects corresponding to the surfaces within the view based on the information associated with the surfaces and based on a current perspective of the user wearing the HMD (e.g., as determined by the position and orientation of the HMD). Any changes in perspective (e.g., slight head motions of the user that occur on the order of a hundredth of a second) may be tracked by sensors on the HMD and accounted for by the HMD by resampling the surfaces in a view from an adjusted viewpoint. Due to the adjustment of the viewpoint, the surfaces may be translated/moved, skewed, scaled, distorted, or otherwise changed in appearance when they are resampled. Since the scene is not being re-rendered from scratch (e.g., from polygons) and instead just by adjusting surfaces, the scene can be modified relatively quickly (e.g., at 200 Hz). In particular embodiments, the first computing system may be relatively powerful when compared to the second computing system, because the second computing system (e.g., an HMD) may have limited system resources that may not appreciably be increased without resulting in too much weight, size, and/or heat for user comfort.

"In certain embodiments, a surface may be represented by a flat quadrilateral in space or it may be represented by a heightmap to provide information about the contour(s) of the object(s) represented by the surface. Having a surface represented by a flat 'poster-like' quadrilateral optimizes for performance and computational efficiency. However, such a surface representation loses information about the three-dimensional aspects of the objects being represented, which could be needed for properly resolving occlusions, for example. Thus, certain applications may prefer to use surfaces with three-dimensional information about the contours of the visible portion of objects depicted in the surfaces. Such heightmaps may be generated from the viewpoint of a virtual camera as a surface with topology/height information. Conceptually, a contour of a surface may be represented by a continuous mesh, with each vertex in the mesh having an assigned height information (e.g., the height information may be measured relative to the plane in which the flat quadrilateral surface would reside). The heightmap may be generated in a number of ways. When the surface depicts a virtual representation of a physical object within the view of the user, the contour or height information of the virtual object may be defined by depth information obtained using depth sensors or stereo computations of the physical object. Alternatively, when a virtual object is rendered, the contour may be defined based on known 3D data of the virtual object (e.g., as part of the graphics-rendering pipeline, depth data in the depth buffer or z-buffer may be used to generate the heightmap for the surface).

"During rendering, visibility of a surface may now be solved using a heightmap, as a ray cast into the scene from the viewpoint intersects the heightmap of the surface. Such use of a heightmap offers several advantages. For instance, a surface with height information allows for more accurate perspective adjustments and realistic subframe rendering. Additionally, a heightmap is a simple and natural data structure to use, as a

depth map is already a byproduct of 3D rendering and can be used to generate the heightmap. Still further, the amount of data movement required to implement a heightmap is low since the associated computations can occur locally on the AR/VR system. This may allow a scene to be rendered at a higher frame rate, as is important for such displays that must respond rapidly to user movement.

"Another benefit of using a heightmap is to allow proper re-projection of information captured by external-facing cameras to the user. For example, in certain applications, a VR/AR system may have external-facing cameras that could be used to observe and measure the depth of physical objects in the user's surrounding. The information captured by the cameras, however, would be misaligned with what the user's eyes would capture, since the cameras could not spatially coincide with the user's eyes (e.g., the cameras would be located some distance away from the user's eyes and, consequently, have different viewpoints). As such, simply displaying what the cameras captured to the user would not be an accurate representation of what the user should perceive. The heightmap described herein could be used to properly re-project information captured by external-facing cameras to the user. The VR/AR headset, for example, may have two external-facing cameras that have an overlapping field of view. When the cameras observe a common feature in the physical environment, the VR/AR system could use triangulation techniques to compute a depth of the feature. Based on the computed depth of the feature relative to the cameras, the VR/AR system could determine where that feature is located within a 3D space (since the VR/AR system also knows where the cameras are in that 3D space). Such measured depth information may be used to generate a heightmap for a surface that represents the object having the observed feature. When the system renders a scene for display, the system could perform visibility tests from the perspective of the user's eyes. For example, the system may cast rays into the 3D space from a viewpoint that corresponds to each eye of the user through the pixels of a representation of a display screen. If a ray intersects a surface with a heightmap, then the color for the corresponding pixel through which the ray was cast may be determined based on the point of intersection and the texture associated with that surface. In this manner, the rendered scene that is displayed to the user would be computed from the perspective of the user's eyes, rather than from the perspective of the external-facing cameras.

"The embodiments disclosed herein are only examples, and the scope of this disclosure is not limited to them. Particular embodiments may include all, some, or none of the components, elements, features, functions, operations, or steps of the embodiments disclosed herein. Embodiments according to the invention are in particular disclosed in the attached claims directed to a method, a storage medium, a system and a computer program product, wherein any feature mentioned in one claim category, e.g. method, can be claimed in another claim category, e.g. system, as well. The dependencies or references back in the attached claims are chosen for formal reasons only. However, any subject matter resulting from a deliberate reference back to any previous claims (in particular multiple dependencies) can be claimed as well, so that any combination of claims and the features thereof are disclosed and can be claimed regardless of the dependencies chosen in the attached claims. The subject matter which can be claimed comprises not only the combinations of features as set out in the attached claims, but also any other combination of features in the claims, wherein each feature mentioned in the claims can be combined with any other feature or combination of other features in the claims. Furthermore, any of the embodiments and features described or depicted herein can be claimed in a separate claim and/or in any combination with any embodiment or feature described or depicted herein or with any of the features of the attached claims."

The claims supplied by the inventors are:

- "1. A method comprising: receiving, by a head-mounted device connected to a computing system, a surface that represents visible portions of one or more 3D virtual objects in a scene as viewed from a first viewpoint in a 3D space of the scene, wherein: the first viewpoint is determined based on a first pose of the head-mounted device at a first time, the surface is associated with a heightmap, location information of the surface in the 3D space of the scene, and a texture, the surface, heightmap, and texture are generated based on rendered information generated by the computing system at a first frame rate, and the heightmap indicates heights of points on a contour of the surface; sequentially rendering, by the head-mounted device and before receiving a second frame from the computing system, a plurality of subframes at a second frame rate that is higher than the first frame rate, wherein each of the plurality of subframes is generated by: determining a current viewpoint of a user within the 3D space of the scene based on a current pose of the head-mounted device at a different time than the first time associated with the first frame, determining visibility information of the surface by casting rays from the current viewpoint against the contour of the surface defined by the heights of points indicated by the heightmap; generating the subframe depicting the surface from the current viewpoint based on the visibility information of the surface and the texture; and sequentially displaying the plurality of subframes.
- "2. The method of claim 1, wherein the heightmap comprises a mesh of polygons that defines a contour of the surface
- "3. The method of claim 2, wherein a topology of the mesh is fixed.

- "4. The method of claim 2, wherein each vertex of the mesh comprises respective height information.
- "5. The method of claim 1, further comprising, subsequent to the displaying of the plurality of subframes, accessing a second surface rendered at the first frame rate, wherein the second surface comprises a second heightmap and is associated with a second texture.
- "6. The method of claim 1, further comprising, subsequent to the displaying of the plurality of subframes, accessing an updated surface rendered at the first frame rate, the updated surface comprising the surface from an updated viewpoint.
- "7. The method of claim 6, wherein the rendering of the plurality of subframes comprises rendering the plurality of subframes between a first time of the accessing of the surface and a second time of the accessing of the updated surface.
- "8. The method of claim 1, wherein the one or more virtual objects correspond to virtual representations of one or more physical objects, wherein the heightmap of the surface is generated based on distance measurements of the one or more physical objects.
- "9. The method of claim 8, wherein the distance measurements of the one or more physical objects are from different viewpoints.
- "10. The method of claim 1, wherein the determining of the current viewpoint of the user comprises detecting a position and orientation of the computing system and of the eyes of the user.
- "11. The method of claim 1, wherein the rendered information comprises z-buffer data for rendering the texture, wherein the heightmap is generated based on the z-buffer data.
- "12. The method of claim 1, wherein the one or more virtual objects represented by the surface are virtual objects that are predicted to change in appearance as a single unit during a change of the current viewpoint of the user.
- "13. The method of claim 1, wherein the rendering of the plurality of subframes comprises, for each of the plurality of subframes, re-rendering the rendered information at the second frame rate based on the rendered information and the current viewpoint.
- "14. The method of claim 1, wherein the heightmap comprises topology information of the surface.
- "15. The method of claim 1, wherein the heightmap is generated based on a depth buffer comprising depth information of the surface rendered from a plurality of viewpoints.
- "16. The method of claim 1, wherein the heightmap is generated from an initial viewpoint based on a depth map comprising depth information of the surface from a plurality of viewpoints.
- "17. The method of claim 16, wherein the initial viewpoint is selected from among a plurality of viewpoints associated with the depth map.
- "18. A system comprising one or more processors and a memory coupled to the processors, the memory comprising instructions that, when executed by the processors, configure the processors to: receive, by a head-mounted device connected to a computing system, a surface that represents visible portions of one or more 3D virtual objects in a scene as viewed from a first viewpoint in a 3D space of the scene, wherein: the first viewpoint is determined based on a first pose of the head-mounted device at a first time, the surface is associated with a heightmap, location information of the surface in the 3D space of the scene, and a texture, the surface, heightmap, and texture are generated based on rendered information generated by the computing system at a first frame rate, and the heightmap indicates heights of points on a contour of the surface; sequentially render, by the head-mounted device and before receiving a second frame from the computing system, a plurality of subframes at a second frame rate that is higher than the first frame rate, wherein each of the plurality of subframes is generated by: determine a current viewpoint of a user within the 3D space of the scene based on a current pose of the head-mounted device at a different time than the first time associated with the first frame, determine visibility information of the surface by casting rays from the current viewpoint against the contour of the surface defined by the heights of points indicated by the heightmap; generate the subframe depicting the surface from the current viewpoint based on the visibility information of the surface and the texture; and sequentially display the plurality of subframes.
- "19. The system of claim 18, wherein the processors are further configured to, subsequent to the displaying of the plurality of subframes, access an updated surface rendered at the first frame rate, the updated surface comprising the surface from an updated viewpoint, wherein the rendering of the plurality of subframes comprises rendering the plurality of subframes between a first time of the accessing of the surface and a second time of the accessing of the updated surface.

"20. One or more computer-readable non-transitory storage media embodying software that is configured, when executed by a processor, to: receive, by a head-mounted device connected to a computing system, a surface that represents visible portions of one or more 3D virtual objects in a scene as viewed from a first viewpoint in a 3D space of the scene, wherein: the first viewpoint is determined based on a first pose of the head-mounted device at a first time, the surface is associated with a heightmap, location information of the surface in the 3D space of the scene, and a texture, the surface, heightmap, and texture are generated based on rendered information generated by the computing system at a first frame rate, and the heightmap indicates heights of points on a contour of the surface; sequentially render, by the head-mounted device and before receiving a second frame from the computing system, a plurality of subframes at a second frame rate that is higher than the first frame rate, wherein each of the plurality of subframes is generated by: determine a current viewpoint of a user within the 3D space of the scene based on a current pose of the head-mounted device at a different time than the first time associated with the first frame, determine visibility information of the surface by casting rays from the current viewpoint against the contour of the surface defined by the heights of points indicated by the heightmap; generate the subframe depicting the surface from the current viewpoint based on the visibility information of the surface and the texture; and sequentially display the plurality of subframes."

For more information, see this patent application: Hunt, Warren Andrew. Generating And Modifying Representations Of Objects In An Augmented-Reality Or Virtual-Reality Scene. Filed September 25, 2019 and posted March 25, 2021. Patent URL:

http://appft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.html&r=1&f=G&l=50&s1=%2220210090322%22.PGNR.&OS=DN/20210090322&RS=DN/20210090322

Keywords for this news article include: Business, Facebook Technologies LLC.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document POLGOV0020210408eh48001a8



## Facebook and Adjust on the Global App Economy: Gaming and Entertainment Top Growth Verticals

Adjust GmbH; PR Newswire 803 words 8 April 2021 12:30 PR Newswire Europe TWOTEN English

Copyright © 2021 PR Newswire Europe Limited. All Rights Reserved.

Growth report enables marketers to target and retain their highest-value users in verticals across the app economy

SAN FRANCISCO, April 8, 2021 /PRNewswire/ -- Adjust, the global app marketing platform, released today its second global Mobile App Growth Report, in collaboration with Facebook\*. Charting app growth and retention trends in 2020, the report demonstrates the extraordinary resilience of the app economy, with the strongest growth in APAC, MENA and South America. Gaming is the world's fastest-growing vertical, led by Argentina, while India tops the charts as the fastest-growing region.

#### https://mma.prnewswire.com/media/1178447/Adjust Logo.jpg

Using its own Growth Score, Adjust created a global map to highlight mobile app trends outside big, mature markets — showing app marketers where the highest growth potential can be found.

"Now more than ever, mobile marketers need a roadmap to identify just the right users, in just the right locales, at just the right points in their journey," said Andrey Kazakov, Chief Operations Officer of Adjust. "Adjust's data, coupled with Facebook's insights into user preferences and actions, enables marketers to target and retain their most highest-value users."

Highlights on standout verticals and regions include:

\*Gaming wins globally: Following on from the findings in Adjust's <u>Mobile App Trends</u> last year, games were the top-ranking vertical. This is largely due to innovative business models like <u>hyper casual</u>, instantly playable games that are designed to engage with simplistic, satisfying mechanics.

\*Latin America dominates gaming, as increased accessibility and growing urban populations spur rapid mobile development. Three of the top-five countries in gaming are in Latin America, with Argentina leading the pack. Vietnam, Brazil, China and Mexico round out the top five.

\*India is growing the fastest, with ever-increasing mobile penetration. Education is the fastest-growing app vertical, while Entertainment is the one to watch as a highly competitive market in streaming and Over the Top (OTT) media emerges.

\*Entertainment has grown rapidly, and subscriptions are the trend to watch. According to <u>research conducted</u> <u>by Adjust</u>, using Apptopia data, nearly 80 percent of the top 225 apps in the Google Play Store and nearly 50 percent of the top 225 apps in the App Store are subscription-based.

\*Korea and Vietnam top the charts for ecommerce, as the two fastest-growing markets in mobile-first commerce. For Vietnam in particular, apps there have massive room to grow, building in untapped markets with eager consumers. China, Egypt and Colombia are also strong performers in ecommerce.

Equipped with these insights, marketers can architect an effective strategy around markets where they can grow their apps most successfully. More importantly, they can create hyper targeted and personalized customer experiences.

"The mobile app is truly a global business. It's easy to start because of the low barrier to entry, but also easy to fail if you do not understand the markets and users well," said Bryan Wang, Director of Marketing Science, Greater China Region & Gaming at Facebook. "The data and insight in the Mobile App Growth Report can help app advertisers identify their new market entry strategies and enable the winning tactics effectively."

For additional findings, download the full report here, or read more on the Adjust blog here.

#### Methodology

The Adjust Mobile App Growth Report, supported by Facebook, draws on data from 25,000 apps released on the App and Google Play Stores in 2019 and 2020 combined, across nearly 250 countries and 12 industry verticals to reveal how well the apps have performed. The Growth Score is calculated by dividing the total app installs per month by the number of monthly active users (MAU) for each vertical and country in the Adjust dataset to reveal the rate of growth from installs relative to the MAU base.

\*All data comes solely from Adjust's platform, and no Facebook data was utilized in any way for this report.

#### About Adjust

Adjust is a global app marketing analytics platform committed to ensuring the highest privacy and performance standards. Adjust's solutions include attribution and measurement, fraud prevention, cybersecurity, as well as automation tools. The company's mission is to make mobile marketing simpler, smarter and more secure for the more than 50,000 apps working with Adjust.

Contact info

Joshua Grandy

Communications Manager, US

pr@adjust.com

https://mma.prnewswire.com/media/1483338/FBco Interim family lockup Inline FB Blue Gray RGB Logo.jpg

Logo - https://mma.prnewswire.com/media/1178447/Adjust Logo.jpg

Logo -

https://mma.prnewswire.com/media/1483338/FBco Interim family lockup Inline FB Blue Gray RGB Logo.jpg

https://rt.prnewswire.com/rt.gif?NewsItemId=EN35930&Transmission\_Id=202104080300PR\_NEWS\_EURO\_ND\_EN35930&DateId=20210408

Joshua Grandy, +1 484-683-5929

Document TWOTEN0020210408eh480018j

Health and Medicine - Translational Medicine; Nanjing Medical University Reports Findings in Translational Medicine (The comparison of teaching efficiency between virtual reality and traditional education in medical education: a systematic review and meta-analysis)

479 words
31 March 2021
Education Letter
EDULTR
237
English

© Copyright 2021 Education Letter via VerticalNews.com

2021 MAR 31 (VerticalNews) -- By a News Reporter-Staff News Editor at Education Letter -- New research on Health and Medicine - Translational Medicine is the subject of a report. According to news originating from Nanjing, People's Republic of China, by VerticalNews correspondents, research stated, "Virtual reality (VR) technology has developed rapidly in recent years and has been applied in many fields, including medical education. A meta-analysis was performed to compare the examination pass rate of medical students educated using VR and those receiving traditional education to evaluate the teaching effect of VR in medical education."

Our news journalists obtained a quote from the research from Nanjing Medical University, "The PubMed, Springer Link, Science Direct, and Wiley Online Library were searched from inception to May 2020. Articles meeting the inclusion criteria were then evaluated, relevant information extracted and a meta-analysis conducted. Students were allocated to a VR group, those trained using VR technology, and a traditional education group, those who received a traditional medical education. Six studies were included in the meta-analysis. The results indicate a significant difference between the pass rate of students educated using VR and those receiving traditional medical education. The odds ratios and confidence intervals of individual studies and our meta-analysis are illustrated with a forest plot. Students in the VR group performed better than those in the traditional education group. Teaching with VR may enhance student learning in medical education."

According to the news editors, the research concluded: "Medical schools should consider making greater use of VR when educating students."

This research has been peer-reviewed.

For more information on this research see: The comparison of teaching efficiency between virtual reality and traditional education in medical education: a systematic review and meta-analysis. Annals of Translational Medicine, 2021;9(3):252-252. Annals of Translational Medicine can be contacted at: Ame Publ Co, Flat-Rm C 16F, Kings Wing Plaza 1, No 3 Kwan St, Shatin, Hong Kong 00000, Peoples R China.

The news correspondents report that additional information may be obtained from Minjie Fan, School of Pediatrics, Nanjing Medical University, Nanjing, People's Republic of China. Additional authors for this research include Guanjie Zhao, Yibiao Yuan, Fei Zhao and Huaxing Huang.

The publisher's contact information for the journal Annals of Translational Medicine is: Ame Publ Co, Flat-Rm C 16F, Kings Wing Plaza 1, No 3 Kwan St, Shatin, Hong Kong 00000, Peoples R China.

Keywords for this news article include: Asia, Nanjing, Technology, Medical Education, Health and Medicine, Professional Education, Translational Medicine, People's Republic of China.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document EDULTR0020210331eh3v00045

#### Facebook Inc. Patent Issued for Picture-Taking Within Virtual Reality (USPTO 10,948,993)

2,857 words
29 March 2021
Internet Weekly News
INTWKN
634
English
© Copyright 2021 Internet Weekly News via VerticalNews.com

2021 MAR 29 (VerticalNews) -- By a News Reporter-Staff News Editor at Internet Weekly News -- A patent by the inventor Alexander, Alexandros (Sunnyvale, CA), filed on June 7, 2018, was published online on March 29, 2021, according to news reporting originating from Alexandria, Virginia, by VerticalNews correspondents.

Patent number 10,948,993 is assigned to Facebook Inc. (Menlo Park, California, United States).

The following quote was obtained by the news editors from the background information supplied by the inventors: "Virtual reality (VR) is a computer-generated simulation of an environment (e.g., a three-dimensional or 3D environment) in which users can interact with virtual objects in a seemingly realistic way. The simulation may include images, sounds, haptic feedback, and/or other sensations to provide users with a realistic perception of an immersive virtual environment. The virtual environment may be visually presented to users through a head-mounted display unit, which may include a display screen and optical lenses. Users may interact with virtual objects within VR through motion sensors and/or hand-held controllers.

"Certain VR applications may support picture-taking in virtual reality. For example, while a user is immersed within a VR environment, the user may wish to take a picture of a VR scene. To do so, a user typically would need to select a virtual camera tool (e.g., via a menu selection), retrieve the virtual camera (e.g., by motioning to pick up or take out the virtual camera as a person would in the real world), aim the virtual camera at the desired scene, and take a picture of the scene. This sequence of movements is akin to how a person would take a photograph in the real world. Although the movements may be familiar users, it is nevertheless cumbersome and time consuming. For VR devices whose input device are hand controllers, requiring users to perform a series of complex movements using unfamiliar hand controllers may introduce an additional degree of difficulty for users to perform the simple task of taking a picture."

In addition to the background information obtained for this patent, VerticalNews journalists also obtained the inventor's summary information for this patent: "Particular embodiments described herein provide an improved user interface that enables users to take pictures within a VR environment quickly and intuitively. In contrast to conventional systems that require a user to navigate a sequence of menus and/or fumble for a picture-taking tool (e.g., a virtual camera), embodiments described herein allow a user to take pictures by gesturing in an intuitive and functional manner. For example, a user may take pictures of a VR scene by positioning his/her fingers (and the corresponding virtual fingers in VR) in a manner that frames the scene of interest. For example, the user may frame the scene of interest with his/her extended index fingers and thumbs. Once the desired scene has been framed in this manner, the user may press a button (or perform any other type of input command) to instruct the system to take a picture of the framed scene.

"Embodiments of the VR picture-taking user interface allow a scene to be quickly framed and captured, eliminating the tediousness of conventional picture-taking methods in VR. Rather than going through the process of navigating through a menu, producing a virtual camera, aiming the camera, and only then taking a picture, users of the picture-taking embodiments described herein could simply frame the desired scene with his hands and take a picture. By simplifying the picture-taking process, the VR picture-taking user interface reduces the latency between when the user wishes to take a picture and the time the picture is actually taken. The reduced latency in the picture-taking process allows users to more readily be able to capture desired moment (which is especially advantageous in VR environments with fast-changing scenes or moving objects). In addition, unlike conventional methodologies with fixed aspect ratios, the VR picture-taking user interface described herein allows a user to specify, at the time of picture taking, the desired aspect ratio based on his/her hand positions. This flexibility affords users with greater flexibility and reduces the need for post-capture image processing.

"Embodiments of the invention may include or be implemented in conjunction with an artificial reality system. Artificial reality is a form of reality that has been adjusted in some manner before presentation to a user, which may include, e.g., a virtual reality (VR), an augmented reality (AR), a mixed reality (MR), a hybrid reality, or some combination and/or derivatives thereof. Artificial reality content may include completely generated content or generated content combined with captured content (e.g., real-world photographs). The artificial reality content may include video, audio, haptic feedback, or some combination thereof, and any of

which may be presented in a single channel or in multiple channels (such as stereo video that produces a three-dimensional effect to the viewer). Additionally, in some embodiments, artificial reality may be associated with applications, products, accessories, services, or some combination thereof, that are, e.g., used to create content in an artificial reality and/or used in (e.g., perform activities in) an artificial reality. The artificial reality system that provides the artificial reality content may be implemented on various platforms, including a head-mounted display (HMD) connected to a host computer system, a standalone HMD, a mobile device or computing system, or any other hardware platform capable of providing artificial reality content to one or more viewers.

"The embodiments disclosed herein are only examples, and the scope of this disclosure is not limited to them. Particular embodiments may include all, some, or none of the components, elements, features, functions, operations, or steps of the embodiments disclosed above. Embodiments according to the invention are in particular disclosed in the attached claims directed to a method, a storage medium, a system and a computer program product, wherein any feature mentioned in one claim category, e.g. method, can be claimed in another claim category, e.g. system, as well. The dependencies or references back in the attached claims are chosen for formal reasons only. However, any subject matter resulting from a deliberate reference back to any previous claims (in particular multiple dependencies) can be claimed as well, so that any combination of claims and the features thereof are disclosed and can be claimed regardless of the dependencies chosen in the attached claims. The subject-matter which can be claimed comprises not only the combinations of features as set out in the attached claims but also any other combination of features in the claims, wherein each feature mentioned in the claims can be combined with any other feature or combination of other features in the claims. Furthermore, any of the embodiments and features described or depicted herein can be claimed in a separate claim and/or in any combination with any embodiment or feature described or depicted herein or with any of the features of the attached claims."

The claims supplied by the inventors are:

"What is claimed is:

- "1. A method comprising, by a computing system: rendering, at a first-time instance, a visual scene comprising at least one virtual object, the visual scene being rendered at a first resolution; displaying the visual scene to a user using a headset worn by the user; receiving, at the first-time instance, hand configuration data associated with the user; determining a frame defined by the hand configuration data; determining, via one or more sensors associated with the headset worn by the user, a viewpoint of the user; projecting rays from the viewpoint of the user through the frame defined by the hand configuration data; generating an image of a portion of the visual scene at a second resolution higher than the first resolution of the visual scene comprising the virtual object based on a density of rays projected through the frame defined by the hand configuration data, wherein the generated image of the portion of the visual scene becomes part of the visual scene at a same time instance at which the visual scene is currently rendered; and re-rendering the visual scene with the generated image of the portion of the visual scene, wherein in response to re-rendering, displaying simultaneously, using the headset, (1) a preview of the generated image of the portion of the visual scene at the second resolution at the first-time instance and (2) the visual scene at the first-time instance.
- "2. The method of claim 1, wherein the determining of the frame defined by the hand configuration data further comprises: determining that a first left finger, a second left finger, a first right finger, and a second right finger are substantially aligned, within a predetermined threshold, in a plane of the visual scene determined by the frame.
- "3. The method of claim 1, wherein the determining of the frame defined by the hand configuration data comprises: determining, based on the hand configuration data, that a first left finger, a second left finger, a first right finger, and a second right finger of the user are extended, wherein the hand configuration data indicate that corresponding fingers of the user are not touching hand-held controllers of the computing system.
- "4. The method of claim 3, wherein the first left finger, the second left finger, the first right finger, and the second right finger correspond, respectively, to the user's left index finger, left thumb, right index finger, and right thumb.
- "5. The method of claim 1, further comprising: in response to the determination that the frame is defined by the hand configuration data, displaying a visual indicator indicating that a picture-taking mode is enabled.
- "6. The method of claim 1, further comprising: receiving an input from the user after the determination that the frame is defined by the hand configuration data; wherein the image is generated in response to the input.
- "7. The method of claim 6, wherein the input is triggered by fingers of the user that are used to define the frame.

- "8. One or more computer-readable non-transitory storage media embodying software that is operable when executed to: render, at a first-time instance, a visual scene comprising at least one virtual object, the visual scene being rendered at a first resolution; display the visual scene to a user using a headset worn by the user; receive, at the first-time instance, hand configuration data associated with the user; determine a frame defined by the hand configuration data; determine, via one or more sensors associated with the headset worn by the user, a viewpoint of the user; project rays from the viewpoint of the user through the frame defined by the hand configuration data; generate an image of a portion of the visual scene at a second resolution higher than the first resolution of the visual scene comprising the virtual object based on a density of rays projected through the frame defined by the hand configuration data, wherein the generated image of the portion of the visual scene is currently rendered; and re-render the visual scene with the generated image of the portion of the visual scene, wherein in response to re-rendering, display simultaneously, using the headset, (1) a preview of the generated image of the portion of the visual scene at the second resolution at the first-time instance and (2) the visual scene at the first-time instance.
- "9. The media of claim 8, wherein when determining the frame defined by the hand configuration data, the software is further operable when executed to: determine that a first left finger, a second left finger, a first right finger, and a second right finger are substantially aligned, within a predetermined threshold, in a plane of the visual scene determined by the frame.
- "10. The media of claim 8, wherein when determining the frame defined by the hand configuration data, the software is further operable when executed to: determine, based on the hand configuration data, that a first left finger, a second left finger, a first right finger, and a second right finger are extended, the hand configuration data indicating that corresponding fingers of the user are not touching hand-held controllers.
- "11. The media of claim 10, wherein the first left finger, the second left finger, the first right finger, and the second right finger correspond, respectively, to the user's left index finger, left thumb, right index finger, and right thumb.
- "12. The media of claim 8, wherein the software is further operable when executed to: in response to the determination that the frame is defined by the hand configuration data, display a visual indicator indicating that a picture-taking mode is enabled.
- "13. The media of claim 8, wherein the software is further operable when executed to: receive an input from the user after the determination that the frame is defined by the hand configuration data; wherein the image is generated in response to the input.
- "14. A system comprising; one or more processors; and one or more computer-readable non-transitory storage media coupled to one or more of the processors and comprising instructions operable when executed by one or more of the processors to cause the system to: render, at a first-time instance, a visual scene comprising at least one virtual object, the visual scene being rendered at a first resolution; display the visual scene to a user using a headset worn by the user; receive, at the first-time instance, hand configuration data associated with the user; determine a frame defined by the hand configuration data; determine, via one or more sensors associated with the headset worn by the user, a viewpoint of the user; project rays from the viewpoint of the user through the frame defined by the hand configuration data; generate an image of a portion of the visual scene at a second resolution higher than the first resolution of the visual scene comprising the virtual object based on a density of rays projected through the frame defined by the hand configuration data, wherein the generated image of the portion of the visual scene becomes part of the visual scene at a same time instance at which the visual scene is currently rendered; and re-render the visual scene with the generated image of the portion of the visual scene, wherein in response to re-rendering, display simultaneously, using the headset, (1) a preview of the generated image of the portion of the visual scene at the second resolution at the first-time instance and (2) the visual scene at the first resolution at the first-time instance.
- "15. The system of claim 14, wherein when determining the frame defined by the hand configuration data, the processors are further operable when executing the instructions to: determine that a first left finger, a second left finger, a first right finger, and a second right finger are substantially aligned, within a predetermined threshold, in a plane of the visual scene determined by the frame.
- "16. The system of claim 14, wherein when determining the frame defined by the hand configuration data, the processors are further operable when executed to: determine, based on the hand configuration data, that a first left finger, a second left finger, a first right finger, and a second right finger are extended, the hand configuration data indicating that corresponding fingers of the user are not touching hand-held controllers.
- "17. The system of claim 16, wherein the first left finger, the second left finger, the first right finger, and the second right finger correspond, respectively, to the user's left index finger, left thumb, right index finger, and right thumb.

- "18. The system of claim 14, wherein the processors are further operable when executing the instructions to: in response to the determination that the frame is defined by the hand configuration data, display a visual indicator indicating that a picture-taking mode is enabled.
- "19. The system of claim 14, wherein the processors are further operable when executing the instructions to: receive an input from the user after the determination that the frame is defined by the hand configuration data; wherein the image is generated in response to the input."

URL and more information on this patent, see: Alexander, Alexandros. Picture-Taking Within Virtual Reality. U.S. Patent Number 10,948,993, filed June 7, 2018, and published online on March 29, 2021. Patent URL: <a href="http://patft.uspto.gov/netacgi/nph-">http://patft.uspto.gov/netacgi/nph-</a>

Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l =50&s1=10,948,993.PN.&OS=PN/10,948,993RS=PN/10,948,993

Keywords for this news article include: Business, Computers, Facebook Inc.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document INTWKN0020210329eh3t0005d

Global Views - Sports; Researchers from University of Queensland Publish Research in Sports (The New Frontier of Esports and Gaming: A Scoping Meta-Review of Health Impacts and Research Agenda)

407 words 25 March 2021 Politics & Government Week POLGOV 516 English

© Copyright 2021 Politics & Government Week via VerticalNews.com

2021 APR 1 (VerticalNews) -- By a News Reporter-Staff News Editor at Politics & Government Week -- Investigators publish new report on chronic obstructive pulmonary disease. According to news originating from Brisbane, Australia, by VerticalNews correspondents, research stated, "Given the rapid evolution of the gaming industry and the rising popularity of a hyper-connected, competitive esports version of online gaming, a meta-review of the impact of online competitive gaming upon health is timely."

Our news reporters obtained a quote from the research from University of Queensland: "A scoping meta-review was conducted on 10 reviews that reported on any health consequences (physical, lifestyle, cognitive, mental, or social) of esports, online competitive gaming, or video gaming participation, as a player or spectator. While past reviews have examined health effects of video gaming, few have focused upon the newly evolved gaming context, incorporating both playing and streamed viewing, recognition as a professional sport, and potential career and exponential participation. Most past reviews have focused upon physical health impacts of video gaming among adolescents and young adults, but none have examined impacts of different forms of gaming participation in the new gaming era, and their potential differential health impacts."

According to the news editors, the research concluded: "A scoping meta-review was undertaken on the physical, social, and psychological health outcomes of competitive online gaming and associated screen use, revealing a need for further review and research into lifestyle health outcomes including diet and sedentary behavior among young esports and competitive video gaming participants."

For more information on this research see: The New Frontier of Esports and Gaming: A Scoping Meta-Review of Health Impacts and Research Agenda. Frontiers in Sports and Active Living, 2021,3. The publisher for Frontiers in Sports and Active Living is Frontiers Media S.A.

A free version of this journal article is available at https://doi.org/10.3389/fspor.2021.640362.

Our news journalists report that more information may be obtained by contacting Sarah Kelly, UQ Business School, University of Queensland, Brisbane, QLD, Australia. Additional authors for this research include Janni Leung.

Keywords for this news article include: University of Queensland, Brisbane, Australia, Australia and New Zealand, Sports, Global Views.

Our reports deliver fact-based news of research and discoveries from around the world. Copyright 2021, NewsRx LLC

Document POLGOV0020210325eh3p0010g

# Worldwide Virtual Reality Hardware Market Shares, 2020: Facebook Storms Ahead; VR Market Grows 2.5% in 2020

161 words 24 March 2021 MarketResearch.com MRKRE English

Copyright 2021 MarketResearch.com, All Rights Reserved.

Published By: IDC

Worldwide Virtual Reality Hardware Market Shares, 2020: Facebook Storms Ahead; VR Market Grows 2.5% in 2020

This IDC study examines the market share of the major vendors in the worldwide virtual reality hardware market in 2020."The worldwide virtual reality head-mounted display market showed signs of life in the face of the worldwide pandemic," points out Ramon T. Llamas, research director with IDC's AR/VR team. "Year-over-year growth came in at just 2.5%, and nearly all of that growth is attributed to Facebook's Oculus Quest 2. But a closer look at the market reveals multiple end users carefully weighing the opportunities that virtual reality presents and are preparing to move forward in 2021."

Please Note: Extended description available upon request.

To Purchase Report:

http://www.marketresearch.com/feed/factiva/display.asp?productid=14350614

Vendor: IDC

Document MRKRE00020210329eh3o0006y

#### News

Outages reported on Instagram, WhatsApp, and Facebook Messenger; FacebookGamingTwitter account acknowledges "a number of issues currently affecting Facebook products".

Arutz Sheva North America Staff 154 words 19 March 2021 Israel National News ISRLNATL English

Copyright 2021, Israel National News. All Rights Reserved. Distributed by NewsBank, Inc.

Thousands of users on Friday reported outages in Instagram, WhatsApp, and Facebook Messenger.

More than 123,000 users reported issues with Instagram on DownDetector. More than 23,000 users reported issues with WhatsApp on DownDetector, according to The Verge.

More than 5,000 reported problems with Facebook Messenger on DownDetector, the report said.

Facebook, which owns Instagram and WhatsApp, didn't immediately reply to a request for comment.

The Facebook Gaming Twitter account acknowledged that "there are a number of issues currently affecting Facebook products, including gaming streams." The account said multiple teams are working on the issue.

(Arutz Sheva's North American desk is keeping you updated until the start of Shabbat in New York. The time posted automatically on all Arutz Sheva articles, however, is Israeli time.)

Whatsapp iStock

Document ISRLNATL20210320eh3j0000i

#### All News

#### Twitch & FacebookGaming See Mega Rise In Streaming Hours Watched

Justin Diaz 445 words 15 March 2021 Android Headlines ANDHD English

Copyright 2021. Android Headlines. Chris Yackulic

Due to the pandemic that hit in 2020, both <u>Twitch</u> and Facebook Gaming saw a massive uptick in streaming hours watched. According to a new report put out by <u>StreamElements</u> and Rainmaker.gg. People were at home more and needed something to do to fill their time.

Early on the pandemic didn't allow for much travel (even locally) thanks to lockdown orders, which made it a lot easier to stay home and check out any number of livestreams on Twitch for Facebook Gaming.

Both streaming websites did very well last year. Although Twitch is still the larger platform by a wide margin.

Both Twitch and Facebook Gaming average 80% increase during the pandemic

Over the last year, both streaming platforms saw a very big increase in hours watched. Worth mentioning is that the numbers are based on Year-over-Year.

So that's the number of streaming hours watched at this time compared to the same time last year. According to the report, both Twitch and Facebook Gaming saw an increase of about 80% on average. On an individual level, Twitch saw an increase in this particular statistic by about 82%. While Facebook Gaming saw an increase of 78%.

For Facebook Gaming, which was one of the smaller platforms prior to the Mixer shutdown, that translated to about 345 million hours watched. Compared to this time last year which was 193 million hours watched.

For Twitch, the bump took it from around 1 billion hours watched to almost 2 billion, specifically 1.86 billion.

Viewership numbers aren't expected to go back down to last year's figures

The momentum may or may not continue to increase. But one thing that StreamElements seems confident of is that viewership numbers aren't expected to decrease back down to the lower figures that were present last year.

In other words it expects people to continue watching more gaming livestreams on both of these platforms. Even if they don't continue to increase beyond the YoY numbers. They could and likely will stay higher than they were last year.

While the numbers may not decrease to what they were at this time last year, it's quite likely that as more people get vaccinated and are more safely able to spend more time away from home, the watch hours will go down somewhat.

What will be interesting is whether or not Facebook Gaming is able to keep enough popularity to help its watch hours grow past YouTube Gaming. Which has been the second largest platform behind Twitch for some time.

Twitch logo image 1

Document ANDHD00020210316eh3f0000c

#### FacebookGaming Reveals New Eligibility Criteria for Its Partner Program

Brandy Shaul 216 words 11 March 2021 Adweek ADWE English Copyright 2021. Adweek

<u>Facebook Gaming</u> revealed a new set of eligibility criteria for its <u>Partner Program</u>, which <u>Level Up</u> creators will need to meet before unlocking partnership status.

The new eligibility criteria are focused on two metrics: Engaged followers (the number of users who interact with a content creator's livestreams by viewing, liking or commenting), and monthly earnings generated through <u>Stars</u> (fans can purchase Stars and send them to their favorite creators to support their streams). Level Up creators can keep track of their current status and progress to partnership on Facebook Gaming's streamer dashboard.

These new criteria are rolling out now for Level Up creators in Australia, Mexico, the Philippines, the U.K. and the U.S. Facebook said eligibility criteria varies by region, and it didn't reveal the specific numbers Level Up creators will need to reach to unlock partner status.

However, according to Bijan Stephen of <u>The Verge</u>, Level Up creators will need to reach 3,000 engaged followers and earn at least \$2,000 in a month (the equivalent of 200,000 Stars) to fulfill Facebook Gaming's new requirements.

Facebook Gaming Partners receive access to more features than Level Up creators, including access to exclusive creator events and personalized support.

Document ADWE000020210312eh3b0000u

## **Search Summary**

Text	(hd=facebook or hd=meta) and wc>100 and hd=(virtual real estate or virtual properties or digital real esate or digital real assets or digital properties or metaverse properties or digital plots or virtual plots or virtual land or virtual reality platform or manufacturing simulation or virtual simulation or digital twins or virtual manufacturing or immersive learning or mixed-reality learning or metaverse learning or VR learning or AR learning or VR training or virtual recruitment or 3d training or training metaverse or virtual retail or virtual shopping or virtual clienteling or omnichannel shopping or humanising digital retail or immersive virtual stores or 3d virtual store or metaverse shopping or virtual clothing or virtual goods or gaming or digital avatar or digital character or virtual game or 3D avatars or virtual reality or interoperable VR space or digital financial ecosystems or metaverse wallets or robo advisory or virtual financial data or digital bank branches or digital touchpoint or blockchain wallets or digital wallets or digital wedding or virtual wedding or virtual event or virtual concert or virtual theme park or virtual classroom or virtual learning or virtual school or immersive learning)
Date	In the last year
Source	All Sources
Author	All Authors
Company	All Companies
Subject	All Subjects
Industry	All Industries
Region	All Regions
Language	English
Results Found	461
Timestamp	21 February 2022 17:52