

## Mann Foundation's New Tack to Hatch Firms

**BIOTECH:** Incubator already has startup companies on board.

By **AMY STULICK** Staff Reporter

The **Alfred Mann Foundation** plans to take a new strategy to develop companies in the life science industry.

The Valencia nonprofit, started by late billionaire Al Mann and now run by Executive Chairman Dr. **Robert Greenberg**, is orga-



**Greenberg**

nizing an incubator and already has five companies signed up to participate.

Companies may – or may not – utilize space at the industrial park in Valencia where the foundation has offices. Either way, the goal is to get medical develop-

ments to market.

"There's way too much technology that's not moving, that's sitting on a shelf," **Mark Chamberlain**, chief operating officer at the foundation, told the Business Journal. "The incubator allows the foundation to reach more patients in a wider variety of technologies. We have the background, the knowledge and the equipment to help support those sorts of companies."

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## How Data Drive Sales for Dealers

**AUTOMOTIVE:** Software makers partner to reach wider market.

By **MICHAEL AUSHENKER** Staff Reporter

**MarketScan**, a Camarillo producer of automotive financing software, has forged an alliance with Dallas counterpart **StoneEagle** to parlay their respective strengths into improving their services.

The two companies, which announced their joint venture on Jan. 22, have conceived a vari-

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## Coverage for Cyber Threats?

**LIST:** Hackers or ex-employees can compromise data security.

By **AMY STULICK** Staff Reporter

Valley insurance agencies face the task of managing client risk in the emerging field of cybersecurity. A study by Ernst & Young found that 77 percent of organizations have limited cybersecurity, and 87 percent lack adequate coverage.

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# VR: BONANZA OR BUST?

Marketers, gamers and doubters get their heads around virtual reality

By **MARK R. MADLER** Staff Reporter

Virtual reality companies dot the map of the San Fernando Valley. They range from hardware producers, such as **Positron Inc.** in Glendale, developer of the Voyager motion chair, to content companies such as **Pure Imagination Studios** in Universal City, creator of the VR game "Paranormal

Activity: The Lost Soul."

While VR has made inroads into film marketing, gaming, theme parks and pornography, the technology's drawbacks have caused some to question when virtual reality will catch on with the general public.

"They don't want to do it," said **Marty Shindler** of media technology consultancy **Shindler Perspective Inc.**

But **Gene Munster**, a virtual reality

industry analyst with **Loup Ventures** in Minneapolis, thinks the problems with VR are technical – and solvable.

"Once the hardware problem is solved, we will see the content piece picking up nicely," he told the Business Journal in this issue's Special Report.

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Feeling Real: Voyager chair from Positron in Glendale combines motion, visuals and sound.

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### PROFILE MITCH SCHNEIDER



He's been backstage with **Ozzy Osbourne** and **Johnny Rotten** of the Sex Pistols. As a publicist, he has promoted Heart, Kiss, Poison, Whitesnake and the Coachella Festival. Better yet, he explains why "the San Fernando

Valley is just a great place to run a business." Meet **Mitch Schneider**, owner of music public relations shop **Mitch Schneider Organization** in Encino.

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Ranked by 2018 Valley-area revenue  
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B. Riley's acquisition of two investment banks and their fusion with in-house operations shows the challenges of integrating cultures.

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Flights will take passengers from the Valley airfield to Las Vegas, a major hub for the low-cost carrier.



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Captivated: Customer tries Voyager chair from Positron in Glendale.

# ALTERNATE FUTURES

*Despite costly headsets and motion sickness, Valley companies involved in virtual reality see a market opportunity ahead for enhanced entertainment.*

By **MARK R. MADLER** Staff Reporter

**T**wo chairs in a Glendale building can transport a person into the world of virtual reality.

Slip on a headset and a pair of headphones and the red-cushioned chair begins to lean back. Then on the headset viewer comes "How to Train Your Dragon: The Hidden World," and the viewer is introduced to characters Hiccup and Astrid and the dragons, Hookfang, Toothless and Stormfly. The Voyager chair adjusts itself as it tilts back and forward, and rotates side to side, with motion matched to the VR content.

The 4-minute "Dragon" film was made possible by **Walmart Inc.**, which is taking it on a tour in trailers from California to Arkansas that started last month and ends in April. The free film is a marketing tool to get customers into a "How to Train Your Dragon" gift shop.

But for **Jeffrey Travis**, the inventor of the Voyager chair and chief executive of **Positron Inc.**, the Glendale company that developed the device, it is a way to democratize access to the virtual reality format.

An average customer at Walmart does not attend a film festival where VR films are shown, so the trailers

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Interview with  
Positron's Jeffrey  
Travis.  
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and “Dragon” film are a way to get them to slip on a headset and see it for themselves, Travis said.

“They are able to go up to this trailer from a big film title that they recognize and have this immersive, incredible VR experience they never would have had otherwise,” he added. *(An interview with Travis talking about Positron and virtual reality is on page 12.)*

Done in conjunction with DreamWorks Animation, a Glendale-based division of **NBCUniversal** in Universal City, the “Dragon” short was made specifically for use with the Positron chairs.

### Headset issues

Virtual reality companies dot the map of the San Fernando Valley. They run the gamut from hardware developers like Positron to content creators such as **VRWERX**, on the Universal Studios lot, and **Pure Imagination Studios**, in Van Nuys. Elsewhere are location-based entertainment firms such as **Two Bit Circus Corp.**, which has a micro amusement park in downtown Los Angeles that employs virtual reality. The company plans to open another five locations in the next 18 months.

Like digital 3D films from 10 years ago, virtual reality has gone through a cycle of being the next big thing in entertainment to some considering it a big bust.

**Marty Shindler**, of Southern California media consultancy **Shindler Perspective Inc.** was skeptical about why people would want to wear a big headset.

“They don’t want to do it,” Shindler said. “They haven’t done it.”

Complaints about the format center on the cost of the headsets, a lack of content and what content there is not being compelling enough to get people to do it more than once. Additionally, there is the fact that some people get eye strain or feel nauseous while watching a VR film.

**Gene Munster**, a virtual reality industry analyst with **Loup Ventures**, in Minneapolis, said the specific problem with VR is all in the hardware; namely, the headsets are expensive, complicated and clumsy.

“Clumsy includes people getting sick,” Munster said. “Once the hardware problem is solved, we will see the content piece picking up nicely.”

Virtual reality is defined as using computer technologies to create real or imagined worlds seen through a headset. It differs from augmented reality, which is computer-generated imagery or sound placed on top of the real world. Mixed reality is a combination of real and virtual worlds and uses new imagery to interact with the real world.

The history of the format is murky at best. Early examples of a headset were seen in the late 1960s, and for the next 20 years it was limited to training for the military, medical purposes and flight simulation.

By the early 1990s, **Sega Games Co. Ltd.** had developed a prototype of a headset, Sega VR, but it was never made available to the public. Other companies also worked on headsets.

It wasn’t until 2010 and the development of the Oculus Rift prototype that things began to look up for the format. Four years later, **Facebook Inc.** bought Oculus VR for a reported \$2 billion.

“History suggests that there will be more platforms to come,” Facebook Chief Executive **Mark Zuckerberg** was quoted at the time of the transaction. “Today’s acquisition is a long-term bet on the future of computing.”

Others began to get into the space. Samsung, **HTC Corp.** and **Sony Corp.** came out with headsets, while **Amazon.com Inc.**, Google, **Apple Inc.** and **Microsoft Corp.** created virtual reality and augmented reality divisions.

**Nancy Bennett**, chief creative officer at Two Bit Circus, said that in the early days of virtual reality, content creators had to build their own cameras and editing systems.



**Dark Visions: Scenes from the virtual reality game ‘Paranormal Activity: The Lost Soul,’ by VRWERX at the Universal Studios lot.**

“Now you can get off-the-shelf devices for less than \$500,” Bennett said.

Bennett was speaking at Digital Entertainment World, an entertainment conference in Marina Del Rey in early February. She appeared on a panel to discuss virtual reality and its market potential.

Another panelist, **Ted Schilowitz**, the futurist for Hollywood studio **Paramount Pictures** who had a similar position with 20<sup>th</sup> Century Fox, said that when it comes to the “reality” formats, it will be mixed reality that will be the main economic driver while virtual reality will just be the side show.

“It is a better bet to put money on mixed reality than VR,” Schilowitz said.

He added that the industry was at least 10 years away from bringing in multi-billion-dollar revenues.

Location-based entertainment centers will be a good starting point. Along with Two Bit Circus, **Dreamscape Immersive**, which counts **AMC Theatres**, **Unibail-Rodamco-Westfield SE** and director **Steven Spielberg** as investors, has a location in Century City showing virtual reality content and will expand to four other cities this year.

### Content creators

On the Universal Studios lot is VRWERX, a virtual reality content creation company headed by **Alex Barder** and **Russell Naftal**.

The company’s first offering was a video game, “Paranormal Activity: The Lost Soul.” Released in 2017, the game takes players through a 12,000-square-foot haunted house



**Poster: ‘Paranormal’ has a scare engine to alter the action each time the game is played.**

where they can pick up objects with virtual hands. The game creates a robust environment in contrast to other early VR games with a single room where the player shoots at zombies or other creatures, Barder said.

Additionally, a proprietary scare engine provides a new experience each time they play.

“For people to replay this, they have to have a different experience each time,” Barder said. “We pushed our engineers to create a

custom scare engine for us that nobody else was able to do at the time.”

The pair are currently in the early stages of creating a VR game based on the “Mission: Impossible” film franchise.

“You’ll be doing everything you would expect an agent to do based on the ‘Mission: Impossible’ universe,” Barder said.

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“We want people to feel empowered, that they are an actual agent themselves,” Naftal added.

Both Barder and Naftal said the virtual reality industry is unlike any other in entertainment. Unlike a film or television show that cannot be changed once it’s released, a VR game can be constantly updated. The pair said they are always in contact with players to hear feedback about the “Paranormal Activity” game.

“You don’t do what a player says exactly but a lot of times they have great ideas of what they are looking for,” Naftal said.

Ultimately what will be a real game changer is the ability of a person wearing a headset to see themselves in a virtual world, Naftal said.

Being able to see yourself in VR is just what **Halsey Minor** has done with his company, **Live Planet**, in San Jose. Minor spent three years building a VR camera system that connects to the cloud to process and store video. The 16-lens camera is unique, he said, in that the person wearing a headset can see themselves in real time. The camera system is currently being offered for \$4,950 through the company website.

**Adult entertainment**

**Ela Darling** is an adult film actress and also chief marketing officer for **PVR**, a Hong Kong-based company with offices in Los Angeles. PVR has created both a VR camera, the K1 Pro, and a headset called Iris.

The adult industry has long been an early adopter when it comes to new technology and virtual reality is no exception. Darling has been making VR porn for about five years.

The Iris is lightweight, easy to use and, more importantly, discreet because of its unob-



Tech Expert: PVR’s Ela Darling touts VR.

trusive look, Darling said.

“I like to take a headset around to show friends and family and the last thing I want is someone to click over to my VR porn,” she added.

The reason adult content was able to harness first videotapes and later DVD and Blu-ray discs was that it had purchasing power in that people were willing to pay for it. With the advent of the internet, an entire generation has grown up expecting adult material for free.

But with virtual reality, Darling foresees a resurgence in a willingness to pay for adult content.

“Customers who would never pay for porn in other mediums are willing to pay for VR because they know that in order for there to be

more content, they have to pay for it someday,” Darling said. “Otherwise it will not exist.”

**VR Bangers**, a Sherman Oaks adult content company, recently updated its Play’a app, which can be used with Oculus Rift and Go, HTC Vive and Samsung Gear headsets or Windows Mixed Reality.

With the Play’a app, a viewer can tailor their virtual reality experience by tilting and scaling the image as well as adjusting the brightness and contrast.

VR Bangers producer **Xander Jones** said that the updated app gives more incentives to the immersion experience of the viewer.

“To us, that is exactly something a professional VR porn producer should think of when trying to provide a premium service,” Jones said in a statement.

Future visions

Shindler, the consultant, is quite skeptical about the market potential for virtual reality.

After all, he pointed out, even IMAX got out of the land-based entertainment VR business starting last year by closing its experience centers, one of which was in Los Angeles.

“After they closed a couple, you knew the rest had to follow,” Shindler said.

Virtual reality is following the path of the Gartner Hype Cycle, so-named for information technology research company **Gartner Inc.** in Stamford, Conn., he added.

The cycle starts with an Innovation Trigger and then goes to the Peak of Inflated Expectations where there is a lot of money going toward the technology. Virtual reality experienced that between 2012 and 2016, Shindler said, and then it began to drop off as the tech entered the Trough of Disillusionment. That is the part of the cycle when companies get out of the business as they see it is not going to happen, he added.

Finally, there is the Slope of Enlightenment and the Plateau of Productivity.

“VR may get to the point; it remains to be seen, but not with the headsets that are out there today,” Shindler said.

It is outside of the entertainment industry that Shindler thinks virtual reality will make its mark.

“If you are a washing machine repairman and you have a problem, you might be able to dial into a central server and with a VR headset figure out how to do the repair,” Shindler said.

Barder and Naftal of VRWERX also believe there are applications for the format outside of video games. Barder recently met a cardiologist who wanted to use VR to look inside the heart and see its condition.

“It’s the perfect platform for that kind of thing,” Barder said. “And it’s way beyond immersive entertainment. VR can save lives.”

Munster, the analyst with Loup Ventures, said that while he knows and respects Shindler, he doesn’t agree with him about VR. He thinks it will have a more profound impact on society than anyone realizes.

“It is easy to be negative on VR today, but I am still optimistic about what it can do,” Munster said.



Immersive: Live Planet’s 16-lens camera.

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# Chair Man of Virtual Reality's Hardware Shop

By **MARK R. MADLER**  
Staff Reporter

**J**effrey Travis has a background in engineering, but his career focuses on entertainment. As co-founder of Positron Inc., a Glendale virtual reality and experiential technology studio, Travis invented Voyager, a motion-controlled chair platform that gives a viewer a more immersive experience when watching a VR film. Voyager debuted two years ago at the Sundance Film Festival and the chairs are available for lease into select theaters, hotels, concerts and events to provide a premium VR experience. "There is a keen interest on my part to find a way to use technology to tell better stories," Travis said. A graduate of the University of Texas in electrical and computer engineering, Travis went on to start Burning Myth Productions that produced the animated feature "Flatland" in 2007 and the thriller "Dragon Day" in 2013. The following year he started Positron. Travis spoke with the Business Journal about the market potential for virtual reality, what people like and don't like about the technology and the most fun aspect of his job.

**Question: How is virtual reality used by Positron?**

**Answer:** I look at it as an entirely new medium that draws from filmmaking, gaming, theater. Our interest in VR is on cinematic storytelling. We created a hardware and software platform that is intended to bring the best cinematic experience to audiences. It is for out-of-home locations, such as a cinema that is repurposing a screen to put in these kinds of chairs to show VR. Museums are starting to install some of these as well. We have had several of these installations at film festivals. At South by Southwest, we will partner there with several companies, including Universal, Accenture and Technicolor, to bring three different VR experience to audiences there.

**How do you see the VR market developing?**

It's primarily going to be about initially having to access experiences without people having to buy a high-end computer and headset in their home. That is happening – the rate of adoption of people getting VR headsets continues to increase. PlayStation VR combined with some of the other VR headsets shipped 4 million units last year. I see it mainly starting with LBE, or location-based entertainment. It is happening in places even here in L.A. that are now catering to folks that want to go pay \$20, \$30 and have an experience at a place like The Void or Dreamscape. Two Bit Circus is another one. At Positron, we are looking to have our own Positron VR Cinema with the first one in L.A. sometime in the near future. People can come and experience cinematic VR in one of our motion chairs.

**Where else has Positron put Voyager chairs?**

We did a pop-up at the Ace Hotel. It was a VR cinema for a week. We essentially did one Facebook ad and a little bit of word-of-mouth and sold out 100 percent of the shows, Monday through Sunday. What was interesting was that we would always ask people had they done VR before. And 70 percent of the people had not. Or they had only tried Google Cardboard. It is interesting to see people coming to a place, buying a ticket and none of them had seen the content. We showed three sci-fi VR films that were festival films from Sundance, Toronto and Tribeca. To see people's reactions to it was fascinating.



**Mover:** Jeffrey Travis, inventor of the Voyager chair and co-founder of Positron in Glendale.

**Were these films made especially for the Voyager chairs?**

None were made for the chair. We enhanced them by adding some motion. In two cases, the directors decided to make some editing changes to optimize it for the chair. It is a little bit like an IMAX where there might be some optimization for the framing.

**What is the market potential?**

Enormous. One of the analysts that we follow says the VR/AR combined will be a \$50 billion market by 2023. According to our

projections we think cinematic VR is going to be a \$3 billion market. It is based on if you had 100,000 chairs running in how many locations that was and you only sold 30 percent of all available slots it would be a \$3 billion market. For comparison, there are about 24 million seats in movie theaters worldwide. So, 100,000 chairs is not a crazy number.

**What will take to reach that potential?**

I think a lot of it is about access and great content. Content is getting better. So much of the VR content that was made in the last cou-

ple of years has tended to be a demo, something really short. If it's not a game, there has been a lack of full narrative content. I see that starting to change. Disney just released their very first VR film called "Cycles." It is super moving, very classic Disney in terms of it being animated but fully taking advantage of the VR medium. The story they told would not have worked on a traditional screen.

**How are the studios using VR?**

Some of the other studios were originally making VR content just as marketing pieces,

**'It's a deeper level of immersion. ... In VR, there is an opportunity to feel like you are inside the story in a different way.'**

to promote a bigger film. We've showcased on our platform: "The Mummy VR Experience" a couple of years ago; "Jurassic World" and "First Man." Each of these pieces was successful.

**What do people like about VR technology?**

It's a deeper level of immersion in a story. Again, when compared to great filmmaking or a great piece of theater you are mesmerized, your transfixed by the story. You have that sense of being lost in the story. In VR, there is an opportunity to feel like you are inside the story in a different way. VR brings you a lot closer to what is happening in the story with the characters because now you feel like you are inside of it. There is no more frame to look around. There is an escapist element to it. VR has the potential of taking you places you might not otherwise go.

**What don't people like about it?**

Some VR is causing motion sickness. The last study we read is about 20 percent of people will experience nausea on average. One of the things about our chair is we eliminate that. We have less than 0.2 percent people report nausea. It still an issue until certain things are resolved on how the graphics work and how your inner ear gets triggered. I think another thing about VR is it can get a little bit intimidating because of all the wires and you're putting this thing on your face. You can feel awkward if you are doing it in a public space with other people watching you.

**Is cost an issue when it comes to the headsets?**

It depends. I think that for an average consumer the high-end headsets are a little pricey. We use the Samsung Gear that retails for \$399 right now. It requires a high-end computer. I think the cost of headsets is high for home adoption but the cost for a ticket to a location-based place is not. We found that people are happy to pay \$20 if they get a real rich experience.

**What is the most fun part of your job?**

Watching people who have never done VR see something amazing for the first time – that look of joy and wonder on their face and seeing their emotional reactions.