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The New (Augmented) Reality in the Life Sciences

Augmented reality (AR) gained widespread attention the summer of 2016 with the addictive game, Pokémon Go. But these days, AR is not just for fun. This disruptive technology is expected to drive significant changes to businesses across many industries because of its ability to combine the virtual and physical worlds. Specifically, AR transmits a live view of a real-world environment that is augmented by computer-generated, 3D images. A digital object can be scaled to fit neatly in a physical environment using an AR application and camera on a mobile device.

In 2018, AR is moving beyond early experimentation, which merely showcased AR's novelty, into more viable business application—especially in the life sciences industry. Innovative companies are developing compelling ways to use AR to enhance customer engagement, improve education of complex topics, and create powerful, even emotive, brand differentiation.

Early use cases for AR

AR is becoming more accessible thanks in part to new software such as Apple's ARKit, which is making it faster and easier to develop applications. There are more than 2,000 AR applications available today, and more coming, according to a report by research firm Forrester Research. "Virtual reality (VR) and AR solutions are revolutionizing the way large and complex B2B products get marketed and sold—just as three-dimensional (3D) modeling precursors forever changed the way these products get designed and manufactured," noted Forrester.

Early adopters in the life sciences are starting to use AR to explain complex concepts and treatments. It optimizes today's digital channels by providing an attention-grabbing new content type that allows healthcare professionals (HCPs) and patients to engage directly with 3D images. For example, one company created a 3D heart model to demonstrate how a medicine moves through the organ as part of a new treatment, producing much greater impact for the audience than a simple video. Other AR applications have mapped an individual's body for surgery and shown the exact location of veins in a patient's arm, helping HCPs treat patients better and improve outcomes.

Regeneron is leveraging AR to create deeper empathy and understanding of patients suffering from vision loss. HCPs can experience the blurriness, wavy lines, or black patches caused by different types of retinal disease to better appreciate the challenges patients face from this condition.

As AR continues to gain traction in the life sciences industry, it will be built into core enterprise software such as customer relationship management (CRM) and content management systems—bringing an exciting digital content format to life by making it widely accessible and actionable. Here's how this will make AR a game changer for marketing, sales, and customer service.

Using AR to spur emotional reactions such as wonder or surprise can also create a better connection with customers, and help ensure HCPs are fully engaged.

1. Enhance personalized customer engagement

AR will enhance customer engagement by creating highly engaging experiences for HCPs and patients. This is crucial today, especially as HCPs expectation increases for digital engagement. Finding new ways to interact with them can serve as a true differentiator and help foster more personal relationships. Using AR to spur emotional reactions such as wonder or surprise can also create a better connection with customers, and help ensure HCPs are fully engaged.

Specifically, AR enables life sciences companies to innovate how they tell and deliver their product's value, as well as demonstrate the outcomes. These demonstrations are extremely powerful, particularly when unpacking complex medical concepts because customers can visualize the product in their actual environment. HCPs gain a clearer understanding of how a treatment works in the body, even in a particularly patient's body. The contextualized experience allows HCPs to more fully appreciate the treatment benefits, too, which also makes the information more memorable.

Consumer brands are already using AR to personalize the customer experience. Ikea Place allows customers to place and move furniture virtually in their own homes. The 3-D furniture appear at scale, with true-to-life representations of the texture, fabric, lighting, and shadows for a true "try before you buy" experience. Similarly, AR can demonstrate exactly how marketing materials might look on display in a doctor's office, similar to how over-the-counter drug makers virtually arrange their shelf layout in-store. This simple change not only personalizes the engagement experience, but it also raises the bar from personalized content to a personalized virtual experience.

2. Improve understanding of complex treatments

Unprecedented scientific discovery has led to an increased focus on developing specialized treatments that are highly complex—both in action and, oftentimes, in delivery. With every new discovery, effectively communicating complicated breakthrough therapies or even cures becomes more challenging—particularly just with words. Videos help but are still limited.

Today, AR technology offers a multi-dimensional way to communicate complex concepts for greater comprehension and retention. In fact, researchers have concluded that AR is more effective in demonstrating spatial and temporal concepts, allowing people to engage in the learning process with multiple senses and producing better results. As Benjamin Franklin said, "Tell me and I forget. Teach me and I remember. Involve me and I learn." AR involves the viewer, in multiple ways, so he or she learns faster.

In healthcare, for example, AR can be used to teach medical practitioners complex medical procedures—not just in theory, but also in practice—allowing them to virtually touch and manipulate objects to see the effect or practice the procedure. AR can also provide 3D on-body visualizations of how medicines or medical devices work for both HCPs and patients. Think of the value of virtually demonstrating a unique delivery mechanism for a new drug to HCPs early in the commercialization process. Medical teams could proactively instill product familiarity and avert potential apprehension before the product is even launched. Combining situational and sensorial learning via AR is an exciting way to improve information retention, deepen understanding of benefits, and pre-market complicated products to key opinion leaders.

"AR is a wonderful new addition to the visual toolbox and can be spectacular in telling a story with impact. AR is a particularly appropriate medium for cases where a contextual understanding of a medical concept is required," said Yan Fossat, vice president of Klick Labs at Klick Health. "For instance, giving someone the ability to instantly see a disease or skin condition on their own skin or enabling them to see what someone with macular degeneration sees with their reduced vision is more impactful than other forms of visual and textual representation."

3. Create powerful brand differentiation

In an increasingly competitive landscape, AR can provide an important point of differentiation for life sciences companies. Marketers will be able to use AR to stand out in a world saturated with content. With AR, companies can add value to the customers—helping them visualize the product, providing empathic experiences or creating context for the product. It offers a new avenue for marketers to engage in storytelling for their brand to communicate product benefits.

A powerful visual experience can showcase important attributes that are different from other products. Differentiation with AR could highlight better efficacy, address new uses or dosing, or build awareness by leveraging an emotional aspect of the product. Life sciences companies using AR can illustrate these distinctions in a fresh new way. Being first to market with an attention-grabbing AR experience can also strengthen brand awareness in customers' minds.

Life sciences companies are testing the waters in new and exciting ways today and industry analysts expect to see a dramatic climb in AR adoption over the next several years. "The integration of AR applications into conventional workflow, such as through CRM, EMR, and analytics platforms, will lead to even more exciting possibilities for commercial operations," concluded Fossat.

Perhaps the biggest obstacle to AR is simply resistance to change and inertia. Forward-thinking companies will lead the way and provide the industry key learnings while creating broader acceptance of AR as a "killer app" with endless possibilities. Looking to the future, AR will be increasingly important in life sciences commercial strategy, creating extraordinary experiences for HCPs and patients.

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