

Beyond the Page: The Role of Virtual and Augmented Reality in the Future of Publishing

A New Take On Traditional Content

A decorative graphic consisting of three concentric circles. The outermost circle is a thin white line. The middle circle is a slightly thicker white line. The innermost circle is a solid white circle. A solid pink dot is located in the upper right quadrant of the middle circle. Two thin white circles are located in the lower left and lower right quadrants of the middle circle.

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A New Take On Traditional Content

The digital publishing industry has undergone a remarkable transformation in recent years, and advancements in virtual and augmented reality (VR/AR) technology are leading the charge.

With traditional media facing new challenges in the digital era, publishers are increasingly looking for innovative ways to set themselves apart from the competition, and VR/AR could offer just that. These technologies are already making an impact in a wide range of industries, including gaming and education, and the potential opportunities have caused a lot of excitement in the publishing industry. But while there's been a broad conversation about "how" these technologies work, it seems there's still more to be said for understanding exactly "what" they can do for publishers.

In this e-guide, we'll delve into the role of VR/AR in the future of digital publishing, examining how it's being used today and how it has the potential to revolutionize the industry in years to come. We'll explore the benefits of VR/AR, the potential use cases, and the challenges and considerations publishers may want to keep in mind as they explore this exciting new frontier.

What is Virtual and Augmented Reality?

Virtual reality (VR) is a technology that immerses users in a simulated environment, creating a realistic experience through the use of a headset. It typically involves 3D computer-generated images and sounds that respond to the user's actions in real time, creating a feeling of presence and immersion.

VR is already being used in a variety of industries, from entertainment to education. For example, Facebook's Meta recently launched the Oculus Quest Pro¹ which has many media apps such as Netflix and Youtube, as well as games and downloadable experiences.

Augmented reality (AR), on the other hand, overlays digital content on top of the real world, typically through a smartphone camera or special glasses like Google Glass². It enhances the user's view of reality by adding digital element overlays such as images, text, or sound, without completely replacing it. AR is already being used in the retail industry to provide customers with a virtual try-on experience for clothing and accessories, and in the tourism industry to provide virtual information for tours of destinations. We've seen big brands such as Rayban launch their 'virtual mirror', enabling users to 'try-on' glasses before their purchase with great success.

With these two technologies explained it becomes clear to see how both VR and AR could offer publishers exciting new possibilities for storytelling, engagement, and content that enrich user experiences.



Hypothetically, publishers can use VR and AR to create immersive content experiences that transport readers to different places and times, and provide interactive materials. For example, an article read in AR or VR could show an in-depth video on the page, and allow users to explore specific locations in 3D pop-ups. The possibilities are potentially endless.

With advancements in the accessibility of VR tech, the availability of VR and AR is increasing. Google Cardboard headsets³, for example, currently cost around £10, and this figure could be decreasing. This means mass adoption for the average consumer might not be as far away as first anticipated.

¹ <https://about.fb.com/news/2022/10/meta-quest-pro-social-vr-connect-2022/>

² <https://www.cnn.com/2022/07/19/google-will-once-again-test-augmented-reality-glasses-in-public.html>

³ <https://arvr.google.com/cardboard/>



Current Use Cases and Opportunities

So with a market ready to see exponential growth, what are some of the ways publishers have started capitalizing on the trend? There are various ways in which virtual and augmented reality are currently being utilized to enhance digital publishing. Here are some examples:

1. Digital storytelling

Augmented and virtual reality offers a powerful tool for creating different types of narratives. By using an AR application, readers gain additional context and can experience a story coming to life. An AR or VR user can read an article while listening to an audio version and watching a 3D graphic simultaneously.

The New York Times, for example, has collaborated with Facebook⁴ (Meta) in a long-term partnership to establish an AR lab⁵ comprising over a dozen employees. This lab has been collaborating with a specialized newsroom team to create AR effects by utilizing Facebook's software. Some articles have integrated AR Instagram filters to demonstrate stats and convey information like the efficacy of specific facemasks in blocking the spread of viruses.

On a similar path, The Economist unveiled their VR content pieces via their app as early as 2016⁶, each delving into various virtual reality environments and live-action 360-degree videos. Tom Standage⁷, the Economist's deputy editor, expressed hope that VR will evolve from an interesting hobby to a revenue-generating opportunity.



⁴ <https://www.twipemobile.com/what-is-the-long-term-potential-for-publishers-with-ar-and-vr-technologies-and-in-the-metaverse/>

⁵ <https://www.nytimes.com/2020/10/31/insider/times-augmented-reality-Instagram.html>

⁶ <https://digiday.com/future-of-tv/inside-5-publishers-efforts-monetize-virtual-reality/>

⁷ <https://uk.linkedin.com/in/tom-standage-4674506a>

And it seems all the publishing giants are interested. The BBC VR app on Meta offers an immersive experience to viewers, showing a 360-degree view of content and an interactive experience that engages users and enables them to explore a library of articles in a new way. This is a great example of how virtual reality can enhance storytelling and create a more engaging experience for viewers.

So it's clear digital storytelling is not only becoming more advanced, but it's also proving very popular with publishers and their audiences alike.

2. Gamification

Publishers have been increasingly incorporating gamification into their content to make it more fun and engaging for users. With new technology, the possibilities for gamification become widely expanded across various industries, as explained by **Evgeniy Medvedev**⁸, Head of Partnerships at Rarible (A popular web3 and NFT platform):

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There are many good examples of gamification and its uses. [Recently], a lifestyle brand were selling T-shirts with a small chip inside. This chip meant that people could approach wearers of the T-shirt with their phone and claim a token to say they have met. Whoever collected the most number of tokens would get certain rewards. Not only was this fun for the t-shirt purchasers, but it also encouraged engagement [in the community].

Evgeniy Medvedev

Head of Partnerships at Rarible

⁸ <https://nl.linkedin.com/in/evgeniy-medvedev>

Examples like this show how vast the opportunities are for gamification and how impactful it can be for building audiences and spreading a message (particularly for subscriptions). But gamification doesn't just revolve around real-world interactions or selling physical products. The Guardian has previously stated that the company is interested in incorporating VR projects into wider marketing campaigns to 'gamify' them and make them more fun and engaging. This is another way gamification could make revenue streams more profitable.

With that in mind, it's clear that leading publishers are working hard to bring interactive experiences and gamification into their content. But is gamification actually profitable? The New York Times seems to think so. About three months after they acquired the popular word puzzle game 'Wordle', the paper **announced in a press release**⁹ that the game had brought "an unprecedented tens of millions of new users to The Times." With figures like that, it's easy to see why the gamification buzzword has seen so much attention, and why publishers are excited about how VR and AR could enhance gamification further.

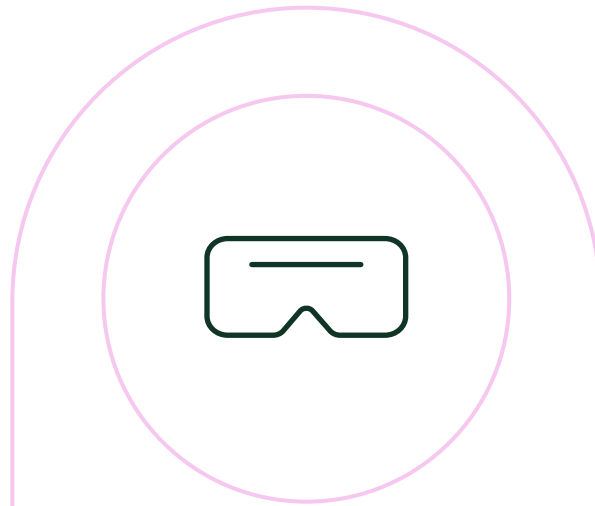
3. Pop-up ads

Following on from The Guardian, engagement is likely to increase when static pictures appear in three dimensions, move, and even interact. The content is more immersive, engaging, and harder to ignore, potentially resulting in lower CPMs and more effective advertising.

In November 2021, Volkswagen launched an innovative advertising campaign that utilized augmented reality technology embedded on QR codes.

To experience the AR ads, users had to scan a QR code that was displayed in various locations such as billboards, magazines, and online. Upon scanning the code, they were taken to a virtual world where they could select one of three Volkswagen models. After selecting a car, users were able to take a virtual drive on a 3D map of various locations such as the Alps, the beach, and the city. Users were also able to record their drives and share them on social media, which helped to increase the campaign's reach and engagement.

The augmented reality campaign was a creative way to showcase Volkswagen's cars and engage potential customers in a fun and interactive way. But it also demonstrated how the digital realm and the real world could merge and become integrated into one. From here, it's not a far stretch to imagine publisher's magazines and websites containing QR codes for additional content to enhance what's on the page.



VR and AR offer publishers new ways to tell stories and create immersive experiences that go beyond the printed page. In addition to the above, VR can improve accessibility for readers with disabilities too. For example, a virtual tour of a museum or art gallery can provide a more inclusive experience for people with mobility impairments, while AR can provide real-time translations for readers who are non-native speakers of a language, or sign language and audio popups for those with impairments.

So as we can see, there are plenty of real-world use cases and opportunities. Overall, virtual and augmented reality offer exciting new possibilities for digital publishing, allowing publishers to create more engaging and interactive experiences for their readers.

⁹ <https://www.marketingdive.com/news/volkswagen-em-beds-ar-driving-experience-on-amazon-boxes/610651/>

The Future of Digital Publishing?

As virtual and augmented reality technology continues to advance, the potential for their use in digital publishing is enormous. We've mentioned previously about how VR and AR could also offer publishers new revenue streams, such as selling virtual and augmented reality content or experiences. Travel magazines could offer virtual reality tours of a destination as a premium add-on for subscribers, or a cooking-themed publisher could offer an augmented reality cooking class as a paid online course.

In this section, we will dive more into the potential future applications for VR and AR technology, and how they could shape the future of digital publishing.

3D Content

With new technology comes the ability to scan scenes and record interviews in 3D. For example, on the Oculus meta platform, ARTE France and PEGI released **"on the morning you wake"**¹⁰, an immersive documentary about a missile warning in Hawaii.

The documentary featured 3D scenes and visuals with interviews and audio from real people in VR. It was widely praised, winning awards and garnering many reviews stating that it was "the future of documentaries".

The success of this type of documentary could set a precedent for future documentaries and news reporting in general. It's clear that experiences like this add something to a story that viewers are actively seeking.

¹⁰ https://www.oculus.com/experiences/quest/5334662579895130/?locale=en_GB



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Audiences are desiring more engaging experiences. Of course, the pinnacle of engaging experiences is live events in person. But when that isn't possible, we see publishers push boundaries in other ways. Content has seen a trend towards more and more immersive and personalized experiences. In recent years, we've seen video interviews embedded in articles, audio versions of blogs, podcasts, and more. Now with VR becoming more popular, these engaging experiences could reach new heights. VR can place a reader right in the middle of an interview, and many would agree that there's nothing quite like experiencing a story first hand.

Chris Petitt

Content Marketing Manager,
Zephr (A Zuora company)

In the past, many have felt that digital publishing is still missing something of an experience to it. It's hard to express quality and demonstrate value for price when the content is just on a screen. One of the big resistances to digital content was that people simply like the feel of physically holding something, turning the pages, and physically engaging with a product. But what if publishers could still achieve that in the digital world? This is where AR could offer a new solution. AR grants the ability to have the experience of being in the real world, while interacting with digital content. This could mean turning digital pages of an AR newspaper, watching an AR video in mid-air, and by all accounts, feeling the experience of a physical product.

Live virtual events

Live events in virtual reality open up a whole range of possibilities for publishers, as James Counter explains:

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As virtual reality technology quickly advances, in particular the comfort and accessibility of headsets, the possibilities for live discussions within virtual spaces become more and more feasible. This could potentially open up a whole new layer of communication and interaction in the metaverse, as people from different parts of the world come together to discuss and share their thoughts on news and current events. With users able to engage in real-time conversation, there is an opportunity for a more enriched and enlightening community experience.

James Counter
Product & Design Director,
Zephr, A Zuora Company

This kind of discussion space could be particularly valuable given the enhanced community feel. Something which publishers have been trying to achieve with their online audiences for a long time. Through the sharing of live discussions, personal experiences and perspectives with people from around the world, readers can gain a deeper understanding of different cultures and societies. This has the potential to foster a greater sense of interconnectedness and belonging to a brand.

This could lead to a shift in the way people consume news, with a greater emphasis on understanding different perspectives and engaging in meaningful dialogue with others.

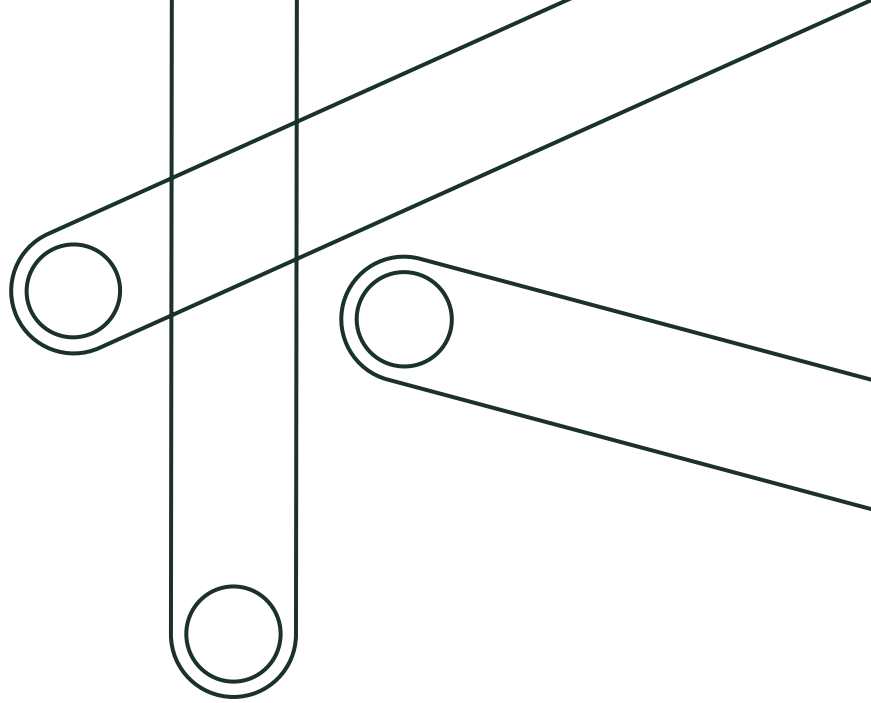
New audiences

VR headset users are growing year on year and the audience size is increasing, with VR and AR marketplaces projected to reach a market volume of **\$52.05 bn by 2027¹¹**.

And that marketplace could increase with still greater exponential growth. Tech giant Apple announced that they're racing to build a trove of software and services for their **upcoming mixed-reality headset¹²**, meaning AR and VR could soon be part of every Apple device, with reported features for gaming, fitness, watching sports, and more.

For digital publishers looking to appeal to younger audiences, this technology might offer a unique way to encourage sign-ups for this demographic. According to a joint study by **Deloitte and Snapchat¹³**, younger generations are driving usage and adoption rates of AR today, with younger people (Gen Z and millennials) being 71% more likely than older generations (Gen X and boomers) to use AR all the time.

Furthermore, various studies and experts have weighed in about Gen-Z being more receptive to new and innovative technologies than older generations. As VR and AR continue to become more prevalent, it's likely that Gen-Z will continue to be a significant user demographic for these technologies.



Overall, virtual and augmented reality have the potential to revolutionize the way we consume and interact with content, offering publishers new ways to engage with their audiences and create more immersive and memorable experiences. As the technology continues to advance, we can expect to see even more exciting possibilities for the future of digital publishing.

To see more tips on how publishers are appealing to Gen-Z, take a look at our e-guide "Gen-Z: The future for news publishers".

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VR, AR, AI, ML, and Gen-Z are all maturing together. Therefore, Gen-Z is the most likely generation to integrate advanced technologies like virtual reality and augmented reality seamlessly into their daily lives.

Samantha G. Wolfe

Founder of PitchFWD and Adjunct
Professor at NYU Steinhardt

¹¹ [https://www.statista.com/outlook/amo/ar-vr/worldwide%23::~text=Revenue%20in%20the%20AR%20&%20VR,US\\$11.58bn%20in%202023](https://www.statista.com/outlook/amo/ar-vr/worldwide%23::~text=Revenue%20in%20the%20AR%20&%20VR,US$11.58bn%20in%202023).

¹² <https://www.bloomberg.com/news/articles/2023-04-18/apple-vr-ar-headset-apps-sports-tv-fitness-gaming-wellness-ipad-features?leadSource=uverify%20wall>

¹³ <https://forbusiness.snapchat.com/blog/the-next-inflection-point-more-than-100-million-consumers-are-shopping-with-ar>

Challenges to Consider

While virtual and augmented reality offer exciting possibilities for digital publishing, there are also several challenges and considerations that publishers need to keep in mind when considering their use. Put simply, AR and VR applications are still not where publishers would ideally like them to be. Facebook's Metaverse struggled with the adoption¹⁴ of their platform, and until virtual platforms like these are more widely accepted, we might be waiting a while for VR and AR to become lucrative revenue streams.

With that in mind, let's look at some of the other key challenges to consider, and what publishers can do about them:

1. Technical Challenges

One of the main challenges of using VR and AR in digital publishing is the technical requirements. Creating high-quality VR and AR experiences requires specialized equipment and expertise, which can be expensive and time-consuming.

Not only that, but to continue delivering personalized experiences and offering subscribers the same high-value content, publishers need to have technology in place that can adapt and be flexible enough to incorporate these new innovations. That's why many publishers today look to incorporate best-of-breed technologies that are easily integrated with new and existing tech stacks. With a mind to future-proof businesses, publishers can safely onboard new technologies, knowing that they can swap and change different aspects of their stack if the need presents itself in the future.

But as well as the internal tech challenges associated with future proofing, anticipating new innovations, and building AR and VR experiences, there's also the additional challenge that not all readers have access to the necessary technology to experience VR and AR content. Even with the low cost of Google headsets, the lack of uptake could limit the potential audience. While it's great to be able to offer rich, in-depth content experiences, we need audiences who can actually use and appreciate them first. Luckily with virtual and augmented reality touted to deliver a **£1.4 trillion boost¹⁵** to the global economy by 2030, we might see a lot of investment in making sure affordable VR headsets and consumer uptake follow the same exponential growth.

While it might still be a while before these technologies are widely adopted and regularly used, the key for publishers to capitalize on this new market lies in being prepared for whenever the inevitable boom does begin. This links back to the earlier point about having the right tech stack in place and the available flexibility to incorporate new changes for the future.



¹⁴ <https://uk.news.yahoo.com/metaverse-ghost-town-113825975.html?>

¹⁵ <https://www.pwc.com/id/en/media-centre/press-release/2020/english/virtual-and-augmented-reality-could-deliver-a-pl-4trillion-boost.html>

2. Expertise challenges

Since AR and VR are relatively new realms, publishers are struggling to build teams with the relevant know-how. The Guardian is a prime example of this. Building a small, five-person VR team, which has to encompass journalism, design, project management and sales altogether. That's a lot of expertise required to launch on a new platform. Not only is it tricky to find people with the right expertise including **3D modelling, experience with Unity, Spark AR, Unreal Engine and animation**¹⁶, but it's also tricky to create projects with limited bandwidth and ensures these teams don't get burnt out.

This raises the question; will publishers look to bring these skills in-house, or will they choose to partner with external suppliers to build these projects?

3. Cross-platform Consistency

In today's world, when users don't feel like an experience is customized, **they feel frustrated**¹⁷. That's why if a news experience in VR is nothing like the personalized one a subscriber is used to seeing on a website, it defeats the objective of trying to shift news to VR in the first place.

To ensure VR and AR are implemented effectively, publishers ought to collect data on their users and encourage them to sign up and register.

By collecting user data on demographics and preferences, publishers can understand better what types of content these users are most interested in, and by having users register, publishers are then able to track them across platforms. This enables publishers to offer the same personalized experience with relevant content no matter where a user logs in (be that on a website, through mobile, or on a VR platform like Meta).

To help more easily customize user journeys, set up registration walls, and prepare for new cross-platform uses, publishers might turn to subscription experience platforms. These allow publishers to gain complete control over the subscriber journey from anonymous user to subscribed, tailoring what messaging is seen and when.

Overall, while virtual and augmented reality offer exciting possibilities for digital publishing, publishers will have to carefully consider the technical, cost, and expertise implications of their use. By being mindful of these and aiming to still deliver the same value and personalized experiences, publishers can work to create high-quality, engaging, and effective VR and AR experiences that enhance the overall reader experience with their brand.

¹⁶ <https://www.twipemobile.com/what-is-the-long-term-potential-for-publishers-with-ar-and-vr-technologies-and-in-the-metaverse/>

¹⁷ <https://instapage.com/blog/personalization-statistics>



Valuable Experiences Win Overall

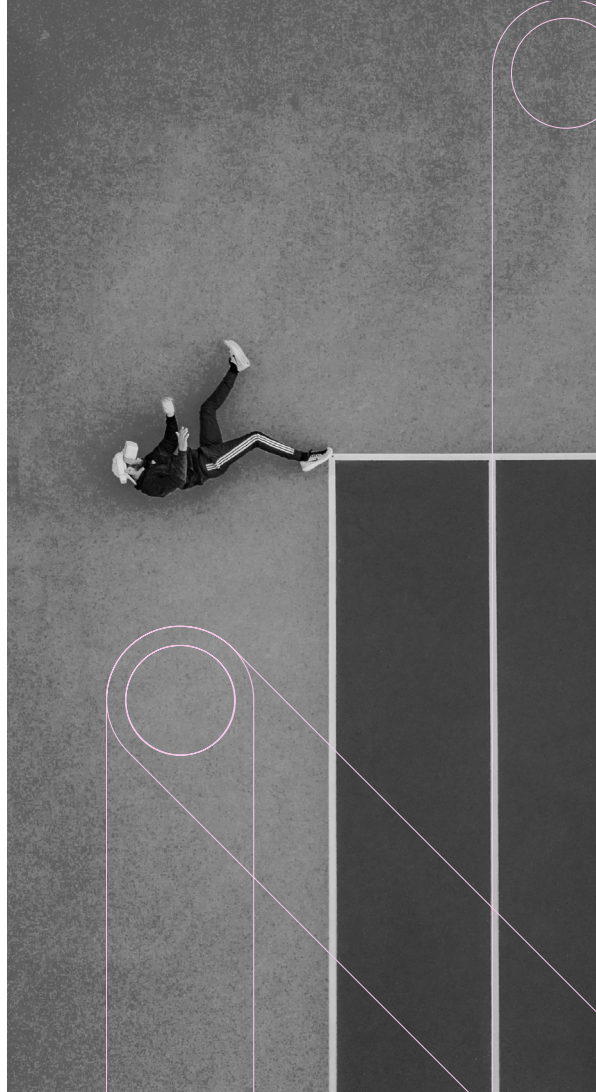
To conclude, AR and VR technology offer some interesting scope for immersive content experiences. Their potential as a new revenue stream is definitely recognised by publishers, and many leaders in the industry are already preparing for the shift (and have been for quite some time).

It certainly seems as though there will eventually be a boom in these experiences, and those with the ability to capitalize on the trend when it does strike will be in a good position to stand out from the competition and broaden their reach to new audiences.

But even with all the potential, the reality is that VR and AR experiences are currently still in the development stages. Cost and technical limitations are big factors holding small-scale publishers back from jumping on board.

What we can count on is the fact that subscription audiences will continually seek out valuable experiences. Those who can offer ever more in-depth and personal new ways to demonstrate content will likely be rewarded with an audience who are highly engaged and loyal to the brand.

To see how publishers are using data to do just that, take a look at our e-guide “**7 best ways to leverage first-party data capture strategies for a competitive advantage**”¹⁸.



¹⁸ <https://www.zephhr.com/eguide-7-best-ways-to-leverage-first-party-data-capture-strategies-for-a-competitive-advantage>

Ready to unsilo your revenue streams?

Speak to someone on our team



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