

# A Changing World: Culture Disrupted

---

**Peter Tullin**

Co-Founder  
REMIX Summits

---

*From virtual reality and augmented reality to non-fungible tokens, new and emerging technologies are presenting novel platforms for arts and cultural institutions to reinvent their practices and develop innovative solutions for cultural experiences and audience outreach. The co-founder of REMIX Summits provides an insightful overview of these trends and the opportunities they afford.*

---

Technology has already disrupted much of the creative industries over the last few decades. It has been more than 20 years since the launch of the file sharing service Napster, which fired the starting gun on a revolution that sent music, television, and film down digital pathways, turning industries on their head. Similarly, while the humble book will always be with us, it has evolved into a digital product, with the release of the Kindle e-reader by technology company Amazon in 2007 marking a milestone in e-books going mainstream. A year later, Amazon bought Audible as audiobooks surged in popularity. This evolution has fundamentally changed our reading habits, as well as publishing and libraries.

Cultural institutions have of course been buffeted by these same forces and have adopted many digital tools. However, the experience of visiting a cultural institution is largely the same as when the Ashmolean, arguably the first public museum in the world, opened in Oxford over 300 years ago.

Predicting the future is a fool's errand. But could it be that in the next 10 years, we will see changes in the way we create and experience cultural and creative content mirroring the profound shifts in other creative industries such as publishing and music?

There are a number of technological markers that perhaps point to this scenario, some of which I will touch upon. These include the potential impact of AI (Artificial Intelligence), Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR) as well as the blockchain and NFTs (Non-Fungible Tokens). This list is by no means exhaustive, but their applications will demonstrate some of the seismic shifts that are underway.

The inexorable march of technological change continues to speed up (and of course the pandemic has played a role here) but this has always been with us. The transformation underway is also being accelerated by changes in audiences whose expectations have been changed in a digital realm of on-demand products and services from Uber to Netflix. Increasingly realistic and interactive computer games have the potential to transport us to the virtual worlds promised in novels such as *Ready Player One*, where we could visit any period in history without ever needing to set foot in a museum. Digital experiences such as these will become ever more immersive with the continual improvement of technologies such as VR, Haptic Technology, and even Digital Scent technology. Even while mainstream adoption still eludes VR, start-ups such as Zero Latency have grown an industry which has seen hundreds of free-roam VR experiences open across the globe over the last few years. How long will it be before these experiences move beyond shooting zombies to exploring alternative content? Narrative-driven immersive entertainment experiences such as Jeff Wayne's *The War of The Worlds* in London already use a combination of VR plus real actors to transport visitors into the dystopian universe of the classic H.G. Wells science fiction novel.

---

# The Second Coming of VR

---

While widespread adoption of VR in the home has not quite panned out as predicted, it may still just be a matter of time as the technology continues to develop. Headsets such as the Oculus Quest 2 (owned by technology company Facebook) are now untethered (headsets that do not require a wired connection to a powerful and expensive PC), offering the possibility of a convenient, easy-to-use, high quality VR experience at an affordable price. Facebook recently revealed they have sold 4 million of these units.

Facebook's purchase of Oculus underpins their belief that the internet is about to move into a new phase. This has been called the *metaverse*, a collection of "virtual environments, experiences and assets" (Herrman and Browning 2021) where we use VR and related technologies to create and collaborate in entirely new ways. Facebook recently announced *Workrooms* which uses the Oculus Quest 2 to allow multiple people to meet and brainstorm in a virtual room as a more immersive and social remote working alternative to Zoom. They believe it could offer a genuine alternative to in-person meetings. To make the interactions as natural and intuitive as possible, participants can also use hand gestures (rather than controllers). Time will tell whether this vision will come to fruition but market research firm IDC predicts that spending in the VR space will grow to US\$72.8 billion by 2024 (up from US\$12 billion in 2020), driven by potential use cases across multiple industries from construction to medicine.

Companies such as Facebook ultimately need to monetise the metaverse to get a return on this investment. The flipside is that the technology can become more accessible if monetisation happens via third-party advertisers. The question is what the trade-offs will be, such as data collection which is the current method of monetisation, or if other models will emerge.

Another factor that could drive the growth of virtual worlds is the emergence of low-cost scanning technologies that allow us to capture objects quickly and easily with little or no technical know-how. LiDAR technology (Light Detection and Ranging) can now be found in the latest iPhone and iPad models. This means that millions of people all around the world can now use apps like Polycam to scan objects in 3D, which could include cultural objects, heritage sites, and institutions for example. Think about what the smartphone has done for photography, and the potential of scanning technologies to effect a similar impact as we march off into the metaverse.

VR still needs the killer apps to truly achieve broader adoption but experimenting with these technologies could be an incredible opportunity for creatives and cultural institutions. The barriers to entry are disappearing and with the tech sector seeking to explore the possibilities of these technologies, they make natural partners. Some players in this space have even set up specific initiatives to collaborate with the cultural sector, such as VIVE Arts (HTC) and Google Arts & Culture which have been operating for a number of years.

The Holodeck was a popular feature of the fictional Star Trek universe which allowed the cast to visit a convincing recreation of any place or time (real or imagined). The series has famously predicted a number of technological

breakthroughs and VR fully evolved could allow us the same experience. Through VR, we can even sidestep some of the limitations of the museum experience. For many visitors, the joy of collections is the wonder of seeing the actual object, but with VR, that object can be placed in context by recreating the historical environment around it. We can do things with the object that we never could in an institution, such as getting as close as we want, even picking it up and manipulating it to see it from multiple angles. For many who might never get to visit artefacts in far-flung parts of the world (or who might not want to visit in person for other reasons such as growing environmental concerns over air travel), it is another way (or the only way) of engaging with them. Virtual experiences also offer another solution to the problem of over-tourism (which will inevitably return once the pandemic recedes).

The Tribeca Film Festival has introduced Tribeca Immersive in the last few years to shine a light on creative innovators in this space and VR has proved that it can generate a genuine emotional engagement and response from audiences in the same way as film, television, or real-life creative experiences. The VR project, *Lovebirds of the Twin Towers*, which premiered at the 2021 festival is a powerful example of this.

---

## Going beyond replicating the physical environment

---

The pandemic has ushered in a myriad of digital tours of galleries and museums around the world. This might tick the minimum viable product box

(in that it is better than having no digital presence at all) but the hard reality is that with the huge competition for eyeballs in the digital space, they will not keep users coming back for more when the competition is Netflix, Roblox or Minecraft.

For me, some of the most engaging digital cultural experiences take the user on a journey they cannot experience in the real world. For example, The Royal Shakespeare Company's multimedia performance piece, *Dream*, was a magical foray into the enchanted forest that forms part of the setting for *A Midsummer Night's Dream* by William Shakespeare. The online environment was created in a popular gaming development platform Unreal Engine by Epic Games and animated by real actors through live motion capture. An interactive soundscape was created by the Philharmonia Orchestra. *Dream* even opened up new business models for the theatre company with paying members of the online audience getting an interactive experience (or you could be a passive watcher for free). *Dream* was an experiment and these technologies remain work in progress. The company estimated that 25% of the audience were first-time patrons, revealing the potential of technology to reach both non-traditional audiences or those who may never get a chance to experience the theatre in person.

One factor that made *Dream* successful was a high degree of digital literacy and capacity in The Royal Shakespeare Company under the guidance of Sarah Ellis, the Director of Digital Development who has been producing pioneering work in this space for a number of years. Another was the identification of and co-creation with technology partners such as Marshmallow Laser Feast, demonstrating how multi-disciplinary collaboration is critical to innovation.

---

# Blurring the physical and digital

---

The changes we are seeing are not only manifesting themselves in the digital realm but also impacting physical visits to cultural venues. The hybrid model that blurs the line between the physical and digital is here to stay. Digital immersion in art in the real world is already proving hugely popular in other ways with audiences. Atelier des Lumières which opened in 2018 in Paris uses proprietary technology to create the projections that bring alive the work of artists like Van Gogh. With 1.1 million visitors in its first year, additional locations are planned over the next few years. Perhaps the best evidence of demand is TeamLab, a creative collective of interdisciplinary artists and technologists founded in 2001 whose digital artworks have been featured at cultural institutions around the world. In 2018 they decided to cut out the middleman so to speak and opened their own permanent space, *TeamLab Borderless*, in Tokyo. In its first full year of operations, over 2.1 million people visited, making it the most popular cultural venue in the world by a single artist (or collective in this case), overtaking the Van Gogh Museum in Holland. TeamLab has opened a further space in Shanghai with other locations to follow (including in Holland).

The growing number of creative entrepreneurs building these new digitally enabled experiences has the potential to disrupt the status quo. There is much more to say about these “upstarts”, as I call them in an essay REMIX recently contributed to the *Creativity, Culture and Capital* project

where we explore how cultural sector policy could evolve to nurture both creative entrepreneurship and intrapreneurship (supporting change makers within cultural organisations). There are a multitude of opportunities for co-creation and collaboration with creative entrepreneurs and this is something that is at the heart of our work at REMIX. This is one solution to digital innovation in the cultural sector but we need to do more than just scout for the best collaborators. Rather, we need to be brave enough to hand them the keys. For example, REMIX recently developed a new experience strategy for State Library Victoria in Melbourne, one of the world's most visited libraries with over 2 million annual visitors. One initiative within this is Alchemy, designed to develop incredible new experiences through collaborations with leading creative entrepreneurs and experience designers across Victoria. A key objective was to also develop business models and long-term partnerships that would make these sustainable rather than one-off projects. Ideas supported included a new content series that will be developed by an Australian TikTok influencer with 350,000 subscribers and millions of views, hence potentially reaching a whole new audience for the library.

As a co-founder of REMIX, a series of global summits in cities such as New York, London, and Sydney that explore the future of the creative industries, I get to see many of the changemakers reshaping the creative landscape at close quarters. Many more will emerge over the next few years to tap into some of the trends I have identified in this article, and this is a great thing for the creative economy. Cultural institutions can play a vital role in building this creator economy, which has the potential to support their own digital metamorphosis.

As an example, REMIX collaborated with ACMI (Australian Centre for the Moving Image) to develop a concept called ACMI X, the first co-working space in a museum in Australia. Some of the creative enterprises that took up residence also helped provide a new creative engine for ACMI that has influenced the organisation's public programming. ACMI X tenant Grumpy Sailor developed the award-winning immersive *Mad Hatter's Tea Party* as part of ACMI's *Wonderland* exhibition. ACMI is one of the most progressive cultural institutions in terms of its understanding and implementation of the hybrid visitor experience and this can be seen in its recent A\$40 million redevelopment. As part of this, the organisation developed an Experience Operating System (XOS) allowing ACMI to integrate visitor experiences from exhibitions to digital platforms before, during and after a museum visit, allowing it to create a genuinely multi-platform experience. An integral part of this is a free take-home device called the Lens that utilises the XOS. The Lens is given to visitors as they enter the museum, and they can use it to "collect" object that interest them for online retrieval after the visit. The XOS also allows them to discover links between their objects and others in the ACMI collection through interconnections developed by the curatorial team.

---

## It is time to partner with content creators

---

Many organisations have also utilised platforms such as YouTube to publish talks and videos. It is interesting that the most popular cultural institution on YouTube is actually not one of the

most visited. The Field Museum in Chicago has about 1.5 million visitors and 592,000 YouTube subscribers. Its digital footprint compares favourably with cultural juggernauts such as The Met Museum (6.4 million visitors in 2019 versus 281,000 subscribers), Louvre (9.6 million visitors in 2019 versus 88,000 subscribers), the Natural History Museum, London (5.4 million visitors in 2019 versus 155,000 subscribers), or the British Museum (6.2 million visitors in 2019 versus 488,000 subscribers).

More importantly, beyond the simplistic measure of total subscribers, the engagement levels in the form of views per video achieved by the Field Museum are much higher than any of the others. The secret lies in their approach. In 2013, they appointed Emily Graslie, a popular YouTuber and Science Communicator as their first ever "Chief Curiosity Correspondent". As part of the deal, her channel, *The Brain Scoop*, came with her. The museum recognised that Emily (rather than the museum) was key to reaching this particular audience and Field Museum branding was relegated to a small logo. However, the canvas provided to Emily by the museum was incredibly valuable in making the partnership a success. She was given free rein to turn the museum into a giant studio, given access to experts, collections, and content as well as to the museum's extensive network of contacts, including other cultural institutions.

Emily has recently left the museum. Despite the outstanding results, in the eight years since Emily, *The Brain Scoop*, and Field Museum first joined forces, few other cultural institutions have adopted a strategy of actively working with creators and social media influencers to develop content (and new audiences). This feels like a missed opportunity. Perhaps the most compelling

indicator of the success of the experiment is found in the subscriber count for the official Field Museum YouTube channel, which stands at 6,000.

Developing digital audio experiences could be another fertile ground for cultural institutions. Podcasting is making headlines with a massive growth in audiences. For example, 60% of US adults aged 18 to 34 listen to podcasts monthly in 2021 (*Insider Intelligence* 2021). Cultural institutions such as the Metropolitan Museum in New York have recognised this trend, who has recently collaborated with Nate DiMeo, host of the popular Radiotopia podcast *Memory Palace*, to tap into his audience. Creators are benefitting from an associated growth in advertising dollars with 2021 marking the year podcasting becomes a billion-dollar industry (*Insider Intelligence* 2021). Creators have also been using platforms such as Patreon to convert superfans into regular paying supporters. Patreon is also popular with YouTubers and there are now 200,000 creators using the platform with 6 million active monthly patrons who have contributed over US\$2 billion dollars to date (Patreon, n.d.).

Once you build a community who is passionate about what you create, you can then monetise that relationship to sustain and grow your creative practice. More and more creators are using crowd-funding platforms like Kickstarter, Indiegogo, and GoFundMe which are part of a US\$12 billion industry (2020), and predicted to more than double by 2027 (Precision Reports 2021). Crowd equity which allows fans to directly invest in creative enterprises among others has also picked up steam as a concept. UK immersive experience pioneer Secret Cinema recently raised £4.7 million from fans and investors on CrowdCube to fund its growth.

---

## NFTs—hype or the real deal?

---

Digital art has been with us for a while but establishing proof of ownership of digital content, which is critical to allow artists to make a living, has always been a challenge. Pioneers such as Sedition, an online platform for Digital Limited Edition Artworks tried to solve this problem with some success through a digital vault model where buyers of digital works could sell them to others. Well-known artists such as Damien Hirst and Tracey Emin have sold digital editions through Sedition but it is a closed marketplace. The invention of Non-Fungible Tokens (NFTs) provides a universal solution to establish ownership of any piece of digital content, which is a game-changer for artists and other content creators. Utilising blockchain technology, NFTs provide an incontestable certificate of ownership of a digital work.

NFTs are disrupting the art world and things are moving incredibly fast in this space. NFT art marketplaces like SuperRare, which has clocked over US\$90 million worth of NFT art sales since its launch in 2018, have sprung up. OpenSea, the leading marketplace for NFTs, logged an incredible US\$3 billion worth of transactions in August 2021 alone, 10 times the amount in the previous month. Even traditional artworld players like auction house Christie's have come to the party with their first ever sale of an NFT artwork, lending further credibility to the digital art space. Mike Winkelmann aka Beeple, the best-known digital artist, astounded the world when his work *The First 5000 Days* sold for US\$69.3 million (the third highest price ever achieved for a work by a living artist after Jeff Koons and David Hockney).

NFTs also solve another problem. In the real world, once an artwork is sold by the artist, beyond the original purchase price, they derive no further financial benefit even if it appreciates in value. Each time a work by Beeple is sold he receives 10% of the sale price.

Do NFTs have a strong use case? Yes. Are people paying crazy sums for some pretty ordinary art? Probably. Only time will tell but we should bear in mind that most of us are still catching up with a generation where viewing, sharing and trading digital stuff is a normal thing. With digital art you can display the work both on a screen but also anywhere on the internet reaching huge audiences. There is also the potential for NFTs to be applied to physical artworks as well as other real-world applications, so the potential of this technology will continue to grow.

---

## Big tech—competitor or collaborator?

---

Digital is also driving people to real world cultural and creative experiences and one of the biggest players in this space might be surprising to some. Airbnb has been described as the largest hotel in the world with more listings than the largest hotel chain has rooms. Could it soon become the biggest cultural experience provider as well? Airbnb Experiences is a marketplace for experiences and already offers hundreds of them in the Arts and Culture category. These include street art tours, heritage walks, photography, and jewellery making classes.

With millions of guests staying in Airbnb rentals they have a huge audience open to buying experiences from local providers and anyone

can offer them as long as they pay Airbnb a cut and abide by their terms and conditions. Over 30,000 experiences were available in over 100 cities in 2019 with sales increasing sevenfold from 2018 (Shehadi 2019). Airbnb also revealed in that year that some of their top earning hosts are making US\$300,000 in a year (although the average is US\$2,500). During the pandemic, Airbnb launched online experiences and Amazon has also recently entered this space with Amazon Explore. This pilot project also offers virtual cultural experiences but with the integration of Amazon's ecommerce platform, it allows users to buy creative products as part of their experience. Companies like Amazon focus on the potential size of the market before making moves like this, so it seems clear they think there is plenty of money to be made in offering cultural experiences and artisanal goods.

---

## So are we moving to an inevitable digital future and how do we prepare?

---

While the focus of the thought bubbles in this essay seems to be a commentary on the seemingly inevitable impact of technology on how we create and experience culture, it always seems to be the case that for every trend there is a counter trend. Some creative experiences such as Secret Cinema, which stages award-winning immersive shows that bring to life the worlds of movies and TV have grown in popularity because they are easily shared on social media platforms. However, they have found that many in the audience increasingly want to leave their phones at the door to fully



immerse themselves in the story worlds they have created around properties such as *Blade Runner*, *Stranger Things*, *Back to the Future*, and the *Empire Strikes Back*. In an increasingly digital world, we may find more and more of us will revel in a largely analogue in-person experience based on real things.

For all of the new possibilities that technology brings, we also need to remember that not everything about modernity is positive. Many cultural institutions such as the Natural History Museum have taken a stand on big issues such as climate change, so one would think they are unlikely to accept Bitcoin in return for an exhibition ticket anytime soon unless it cleans up its carbon footprint.

---

## There's no going back!

---

Thankfully, museums and galleries are not going out of business any time soon, but the Museum of the Future will need deep digital expertise. They need to embed digital into their DNA and not merely see it as a tool or return to old habits as we emerge from the pandemic. To do this, they need to build a culture of experimentation and risk-taking. They also need to accept that some of these experiments will fail but will provide lessons that will better equip them for future endeavours. They will also need to invest in new skills and capacity and be great collaborators to take advantage of the opportunities and meet the challenges in this area.

They need to be continually scouting digital trends to be aware of what is coming around the corner. Technological change continues to accelerate, audiences are changing, and new competitors are appearing from everywhere.

Digital is also challenging our notion of who is a creator and what is a creative or cultural experience. Personally, I think that is a good thing. □

---

*To delve deeper into the case studies featured in this essay, visit REMIX Academy, an on-demand archive of hundreds of talks by innovators exploring the future of the creative industries (<http://www.remixsummits.com/>).*

---

## About the Author



Peter Tullin is the co-founder of REMIX Agency which explores the future of the creative industries and takes place in cities including London, New York, Sydney, Singapore, Istanbul, and Dubai, partnering organisations including Google, VICE, Bloomberg, and Time Out. He is a creative entrepreneur and co-founder of CultureLabel.com, a venture-capital-funded e-commerce site selling art and design products from over 500 leading culture brands and artists including Tate, V&A, and Guggenheim.

Author of *Intelligent Naivety*, a handbook to help creative entrepreneurs turn their ideas into reality, Tullin also works as a consultant through REMIX Agency and has recently developed the vision and strategy for ACMI X, a new co-working space for moving image and creative tech entrepreneurs at the Australian Centre for the Moving Image. Other notable projects include developing StartSpace, a hub supporting early-stage entrepreneurs, at State Library Victoria, and helping to create Google Cultural Institute, Paris. Tullin is a board member of Museums Victoria and Geelong Arts Centre, and a member of the Minister of Creative Industries Advisory Group in Victoria. He was named in Courvoisier Future 500 and is a Clore Fellow.

## Acknowledgements

As always, my thanks go to my REMIX Agency Co-Founder Simon Cronshaw for his insights and contributions to the thinking in this article.

## Bibliography

Herrman, John, and Kellen Browning. 2021. "Are We in the Metaverse Yet?" *The New York Times*, July 10, 2021. <https://www.nytimes.com/2021/07/10/style/metaverse-virtual-worlds.html>.

*Insider Intelligence*. 2021. "Podcast Industry Report: Market Growth and Advertising Statistics in 2021," July 29, 2021. <https://www.insiderintelligence.com/insights/the-podcast-industry-report-statistics/>.

Patreon. n.d. "The Story of Patreon." Patreon. <https://www.patreon.com/about>.

Precision Reports. 2021. "Global Crowdfunding Market Report, History and Forecast 2016-2027, Breakdown Data by Companies, Key Regions, Types and Application." Precision Reports. 2021. <http://www.precisionreports.co/global-crowdfunding-market-18724114>.

Shehadi, Sebastian. 2019. "Why Tourism Is Moving to a Cheaper, Greener, Smarter Model." FDI Intelligence, June 6, 2019. <https://www.fdiintelligence.com/article/74888>.