

# Access to Audiences: Challenges and Emerging Opportunities in XR Content Distribution



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# Forward

As an artist and researcher, the impulse to explore the topic of access to audiences in XR Content Distribution is intertwined with my own search for a better future for Independent XR. My partner Uri and I created a VR project during a time of great disruption, as the global COVID-19 pandemic took hold and shifted the entire cultural ecosystem in which we operate. Our multimedia project *The Hangman at Home*, first released as a single user VR experience (Venice Film Festival, 2020), then as a short animated film (Krakow Film Festival, 2021), is only now seeing the light of day as *We Are at Home* – a multi-user VR installation (CPH:DOX, 2022). Our experiences forced us to wonder if other artists faced similar challenges and were perhaps finding potential solutions. Where was the business model for this? What happened to the distribution plan? What happens next?

This research dovetails into the Indie Online research performed in 2020, which captured another turbulent time for animation filmmakers, when film festivals first went online or became hybrid events. Now we choose to focus on the XR industry and current distribution challenges and opportunities our community is facing. The topic is one we are passionate about: the rapid changes in technologies and in the XR industry unite many of us – artists, programmers, curators, funders, and distributors. In our attempt to craft a comprehensive overview, we teamed up to co-author this research. Each contributor offers a unique angle and insight into the debate on how we are to access audiences and cultivate a cultural landscape which is sustainable and impactful. Whether working across film, games, theater, or fine art, we face the same challenges and have many of the same opportunities. Our passion for immersive storytelling unites us in a desire to share our work more broadly.

We are delighted to present ‘Indie Online – Access to Audiences: XR Distribution’ at a time when it can be a useful guide. We strongly believe that Immersive Technology plays a pivotal role in artists’ and institutions’ capacity to create meaningful connections: our goal is to highlight these connections and to draw a map of how to get there.

Michelle Kranot

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# Acknowledgements

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The research was performed, analyzed, and presented by:

- Michelle Kranot, project leader
- Mathieu Gayet, XR researcher
- Rebekah Villon, writer and editor

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- Mark Atkin (Immersive Curator CPH:DOX and producer, United Kingdom)
- Gayatri Parameswaran (Director, Co-Founder NowHere Media, Germany)
- Michael Barngrover (XR Researcher, Turkey)
- Paul Bouchard (Head of XR Acquisitions and International Distribution, Diversion cinema, France)
- Michel Reilhac (Co-Curator Venice VR, France-Italy)
- Antoine Cayrol (Co-Founder Astrea Immersive, Producer, France)
- Myriam Achard (Chief New Media Partnerships and PR, Phi Centre)
- Marianne Lévy-leblond x Stéphane Nauroy (Head of Co-Production, ARTE France)
- Maria Rakusanova (HTC Viveport)

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# Executive Summary

XR content (virtual reality, augmented reality, mixed reality) represents a new frontier in creative storytelling and artistic expression. Around the world, artists are using these new technological capabilities to create groundbreaking immersive experiences and growing audiences are eager to explore these creations.

However, European creators of XR experiences are isolated from these audiences due to a lack of applicable and effective distribution channels. Without distribution channels that are appropriate for XR content, creators must instead choose whether to distribute their work using a film or cinema model, or a game or technology model. Neither of these models meets the needs of creators or of interested audiences.

Furthermore, creators are limited by outdated funding systems that limit possible distribution methods and the lack of systemic support for marketing efforts that would position the work to be seen more widely.

In 2021, Indie Online researched the XR content distribution landscape, evaluating current and emerging distribution models for their effectiveness in meeting the needs of creators and audiences. Here are our key findings:

- XR content fails to exist in its own funding support category. Instead, creators must classify and fund the project as a film, game, or performance although the budget, production, and distribution may differ significantly from these models.
- Traditional criteria for measuring the success of film, game, or performance experiences may not apply to XR projects, potentially hampering funding and development of further projects.
- Existing film, game, and performance distribution and marketing methods fail to connect XR content with audiences that are most likely to engage with and appreciate independent artistic works, reducing another potential funding source for creators.
- There is a diverse landscape of emerging XR distribution channels and platforms, which may pose potential solutions to these and other challenges. We explore some of these alternatives with first-person perspectives on innovative XR platforms.

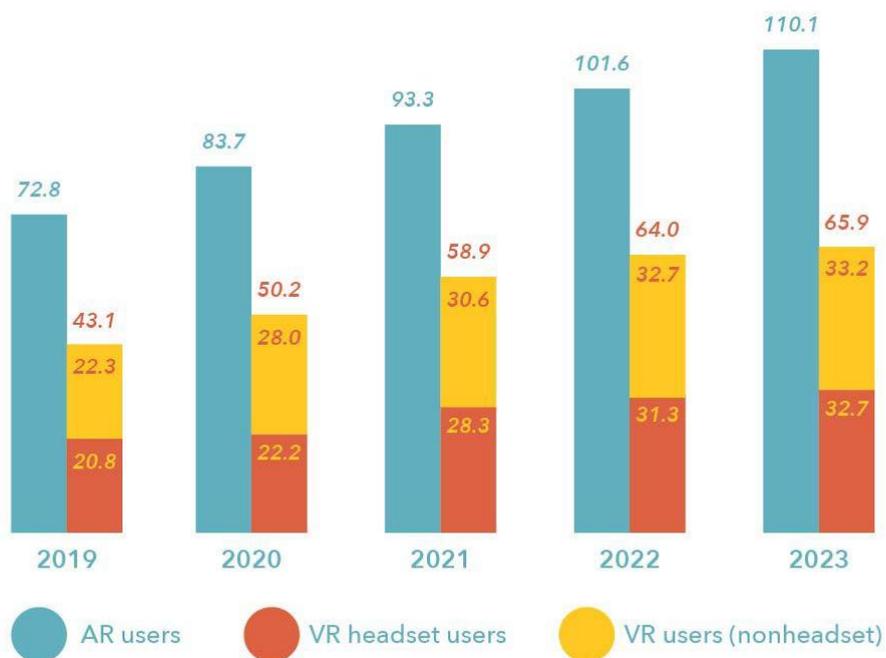
In conclusion, we find the traditional XR distribution methods inadequate for distributing the work of independent artists and offer new avenues for exploration, explaining the criteria by which an effective XR distribution landscape should be measured.

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# Introduction: Established and Emerging XR Distribution Models

XR audiences are growing rapidly. Over 12.5 million VR headsets were sold in 2021<sup>1</sup>, and AR capabilities are standard equipment on new camera-equipped mobile devices. While VR headsets remain a niche product, targeted at gaming enthusiasts, active daily users are projected to exceed 70 million by 2026.

**Figure 1: US AR/VR Users, 2019-2023 in millions** <sup>2</sup>



*Note: individuals of any age who experience VR content at least once per month via any device; AR users are individuals of any age who experience AR contents at least once per month via any device. Source: eMarketer, March 2021*

XR technologies also present a unique avenue for artistic and creative expression. The ability to shift audience perspectives from a third-party observer to a first-party participant enables a wide range of stories and experiences unique to XR, and many artists are attracted to these fascinating new possibilities.

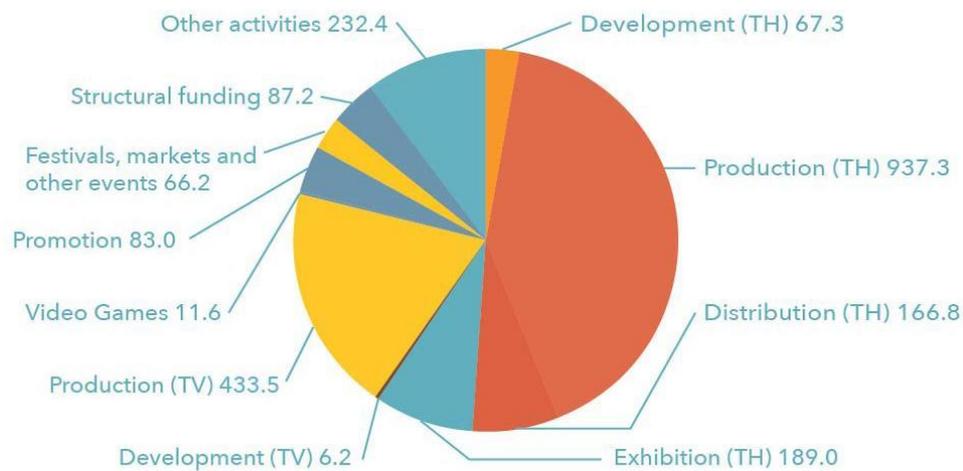
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<sup>1</sup> <https://www.gamedeveloper.com/blogs/omdia-research-reveals-12-5-million-consumer-vr-headsets-sold-in-2021-with-content-spend-exceeding-2bn>

<sup>2</sup> <https://www.emarketer.com/chart/244851/us-arvr-users-2019-2023-millions>

However, XR creators face significant obstacles when trying to share their work with audiences. From the early project development phase, when seeking funding and support, through to launch and distribution, most creators must choose from existing distribution pipelines not designed for artistic XR content. In order to be distributed, XR content must be categorized.

**Figure 2: Yearly average of European public financing investment by content type** <sup>3</sup>



*Note: Yearly average in EUR billion. Source: European Audiovisual Observatory, 2016*

**Cinema distribution.** As indicated in Figure 2, European countries have a well-established funding model for independent, artistic films (TH - Theatrical release). Because the majority of independent XR content creators have a background in screen media, they often adopt this channel for several reasons:

1. The creator is often known and recognized in the film community, which improves their access to funding and support
2. Many XR projects may pursue a hybrid model, with an on-screen experience and a virtual or mixed-reality component. This model may be driven by funding criteria and requirements, rather than by artistic intention.
3. Many of the world's most prestigious film festivals have added XR experiences and exhibitions to their programming. This invites participation from artists with a film background, and creates the possibility of winning prestigious awards, which improves future funding opportunities.

**Game distribution.** The game industry has a robust pipeline for the distribution of XR content to the public. Most people who privately own XR technologies and are familiar with their operation and use, have adopted them in order to access XR gaming experiences. Game platforms have simple and familiar platforms that allow audiences to find, download, install, and

<sup>3</sup> [Public Financing for Film and TV Content, "Spend by type of activity", EAO, 2016.](#)

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use XR content, improving access to audiences. Game platforms also have a built-in funding model where audiences pay for content and the artist is compensated. However, this distribution model presents several challenges to independent XR artists, including:

1. Game exhibitions and showcases have historically had little interest in featuring independent artistic works.
2. In most European countries, there is little to no production funding or support for creating “games”
3. Game audiences may need specific marketing strategies to generate interest and engagement with non-game experiences

**Mixed reality experiences.** The Covid crisis has accelerated interest and support for virtual events and experiences of all kinds. From museums creating virtual versions of their exhibitions to formerly in-person events adding shared virtual spaces, there is more opportunity than ever for mixed reality theatrical, educational, and entertainment experiences.

- While these events typically create job opportunities for mixed-reality artists, they have not yet become robust distribution channels for independently-created works.

When an artist receives different types of funding for different aspects of the project (for example, they may receive film funding for visual production and game funding for immersive or interactive aspects of the same project) they are expected to maintain separate and distinct budgets, milestones, and outcomes for artistic work that is inherently simultaneous, overlapping, and commingled. The nature of XR projects demands production processes that are not compatible with the expectations of various funding channels.

For independent XR artists who want their work to be widely seen and experienced, no current distribution model is yet sufficient. They face an inability to access audiences, which makes the work less creatively fulfilling and reduces access to future funding and support.

Our research was designed to determine how widespread these problems are within the independent XR creation community and uncover new possible approaches to the challenges of distribution.

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## Research Scope and Methodology

For our research, we consulted with experts in various areas of XR distribution in Europe and North America, to identify current challenges and future avenues for exploration. Their perspectives represent a wide range of experiences and outlooks on XR content and platforms.

Interviews were conducted in Q4 2021 and analysis was completed in Q1 2022. We spoke with XR creators, traditional and hybrid festival organizers, XR content curators, and developers of new VR distribution networks.

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# Analysis

Each of our study participants had a unique perspective and was responding to the challenges of XR distribution in a unique way. Each interview offers special insights and possible solutions. However, when taken as a whole, several common themes and sentiments emerge, which we have compiled and analyzed below.

## Cinema Distribution Channels

Since 2014, the creative XR ecosystem has been given a promotional showcase (a "red carpet") at the world's most famous film festivals. XR work is featured at premieres and awards at Tribeca, SXSW, Venice, BIFAN in Korea, Nouveau Cinéma in Montreal, or Raindance in the UK. Independent XR is featured in proximity to the cinema industry, an art form that is much more established, approaching familiar technical and artistic standards. VR artists go to established marketplaces and support bases, like the Marché du Film in Cannes, IDFA DocLab, VIFF Immersed, Kaohsiung Film Festival in Taiwan, or the European Film Market at the Berlinale. VR has found a basis to develop and find an official status, a worldwide recognition, a common value. Through cinema, virtual reality exists today in hundreds of festivals and venues around the world in a recurring way.

Study participants had a wide range of experiences and perspectives on cinema distribution. The most dominant sentiments include:

- Film festivals are very interested in including XR content. Covid sparked even greater motivation and established a basis for ongoing development (40%)
- Festivals provide real-time and long-term networking and marketing opportunities (40%)
- Lack of space/number of headsets/venue restrictions (30%)
- Festivals offer legitimacy, recognition, and respect (30%)
- It is difficult but necessary to create and curate both real-world and virtual worlds equally, which is a challenge for organizers (30%)
- Festivals may offer screening fees or other compensation to rights holders (20%)
- Festival tech capabilities and support can vary dramatically (20%)
- Festivals don't enable large audiences or longer-term monetization (20%)

Notable comments on this subject include:

- Festival and grant application forms require data that isn't applicable to this type of work
- Because our project is publicly funded, we can't put it online for free

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## Video Game Distribution Channels

If we go beyond the presentation of XR works to a first and premium cinema audience (exclusive and local during events), XR distribution shows interesting potential on streaming platforms. For this model, video games are the logical paradigm, but XR artists have yet to master the possibilities or limits of such an approach. It is particularly exciting to imagine something like Netflix or Steam offering independent XR to a widespread audience. Dedicated first and foremost to downloading video games and therefore having a wider audience, Steam was created by the publisher Valve in 2003, and is a particularly active community of enthusiasts. Only 2% of its users have already connected a VR headset to their account (a third of them with a Quest 2) but this represents nearly 2.2 million people. If Steam remains deeply centered on video games, its model interests more and more independent VR producers wishing to propose 6DOF and interactive contents. But currently these types of platforms have technical limitations and content moderating policies that reduce accessibility to independent artists.

Regarding large online (game, social) platforms, our participants felt:

- Existing platforms have established audiences; you can't simply use a platform and attract a different audience (30%)
- Platforms have content requirements and moderation policies that limit the scope of artistic expression (30%)
- Meta/Oculus grows audiences with improved access and affordability (20%)
- Some of this content is exceptional, but may be hard to find. Low quality content deters new users (20%)
- Game platform market is small for artistic content (20%)

## Software and Technology Distribution Channels

The innovation (technical, creative) at the heart of a burgeoning VR movement should create a showcase among technological events. Some of them have been dedicated to it for a long time, like Laval Virtual in France (since 1999) or SIGGRAPH in the United States. The world of tech startups welcomes creative companies, if there is any potential. Events dedicated to video games historically show little interest in creative VR, apart from interactive, game-based experiences like Beat Saber and pay little attention to XR creation in general. Artistic XR can be found in places of exchange and discussion (such as Games for Change), but less so in the major entertainment events (CES, E3, Comic Con, etc.) where it is relegated to the background of major technological experiences and innovations.

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Regarding technical distribution methods, our research indicates the following sentiments:

- Need to manage tech/bandwidth limitations as well as physical/space limitations (30%)
- Need to create multiple types of experiences for different limitations (360 but not interactive, for example) (30%)
- 360 is easier to distribute, localize than 6DOF, friendlier for audiences (passive, non-interactive versions may be better for some audiences/experiences) (30%)
- Each XR creation is essentially software, created by artists with very different backgrounds, with limited interoperability (20%)

## Performance and Exhibition Distribution Channels

The distribution of VR works in festivals other than cinema is often overlooked. This type of work is less documented, and seldom included in conversations about VR distribution in general. For example, Swiss choreographer Gilles Jobin, whose XR creations are widely featured in events related to the world of dance or theater (Singapore International Festival of Arts, Bucharest International Dance Film Festival, Shanghai Theatre Academy, La Comédie in Geneva, etc.). Virtual reality now attracts artists from all disciplines, opening doors to a hybrid promotion that can include events and cultural venues dedicated to other creative worlds. Recently "Le Bal de Paris de Blanca Li", after winning a prize in Venice, was installed for several weeks at the Théâtre de Chaillot in Paris.

There are few events 100% dedicated to the immersive art (NewImages in Paris, Stereopsia in Brussels, the MUTEK network, Ars Electronica in Austria, Sandbox Immersive in China), but these events demonstrate the presence of an immersive industry that is much older than Oculus headsets. Building a full-fledged art scene takes time and, while gradually opening new doors where culture already exists, some VR artists are shaping their own foundation and benefiting from existing promotional and distribution channels.

Regarding showcases/exhibitions (location-specific, real-time, content-driven events), research participants said:

- Such events must be free or low-cost to engage the public; ticket prices may limit participation (30%)
- Ticket sales can generate revenue for the artist (20%)
- Content can reach large, targeted, receptive audiences, if creators create the venue and provide the technology (20%)

Regarding VR showcases at institutions (museums, galleries, etc.), participants felt:

- Love to work with those types of venues (20%)
- These types of venues are very interested, but often unprepared for the cost of equipment, support staff, etc. (20%)

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## Existing VR Platform Distribution

Within the VR landscape, several specialized platforms already exist: Oculus, Viveport, VeeR, etc. But what are their audiences? What are the possibilities (and budgets) of promotion for independent creators to keep content alive over time? What are the effects of algorithm-driven distribution methods? The metaverse could be a more seductive, more efficient, even more global showcase for all, but it remains to be defined. The ZeroEvents collective created during the pandemic (by Michael Barngrover, Andrey Lunev and Alina Mikhaleva of the XR Crowd community) is exploring all the possibilities of these virtual worlds, from VRChat to Engage. The potential of other platforms such as YouTube, which has been offering a 3DOF player for several years, seems to be largely under-exploited.

Not all research participants had experience with dedicated XR platforms. Combined sentiments include:

- Less user-friendly with large files/long downloads for the user, limiting audiences (20%)
- No revenue/ticketing model (20%)
- Some existing VR spaces can work for VR distribution, but don't scale easily. Creating the experience is its own project, in addition to the featured VR content. (10%)
- Best online solution for creators, offering bespoke configurations like those offered at festivals (10%)
- Launching a truly appropriate dedicated platform is large in scale, and expensive, without an established business model. Should be a government effort (10%)

Regarding online virtual events (distributed locations, real-time), participants said:

- Shared virtual events are fun and engaging, but may have been more well-attended due to Covid. Solitary online events are less enjoyable/successful (digital fatigue) (30%)
- Standalone experiences are difficult to promote outside of shared context (10%)
- Platforms like Hubs and VRChat promote shared experiences, but are not suited to distribute indie XR experiences (10%)

## Towards Specialized XR Art Distribution Channels

In order to promote their content on existing or future streaming platforms or metaverse, XR producers must have access not just to the platforms, but to marketing budgets or agencies that allow them to compete, or find international distributors and sellers as they exist in other cultural sectors. There are very few specialized services in the industry, so some creative studios are now developing their own marketing and distribution departments.

Participants repeatedly expressed the pressures of creating and distributing their own VR art, with over 30% mentioning the difficulties of creating, promoting, and distributing their own work, while making time to provide tech support, implementing a marketing strategy, and identifying possible revenue models.

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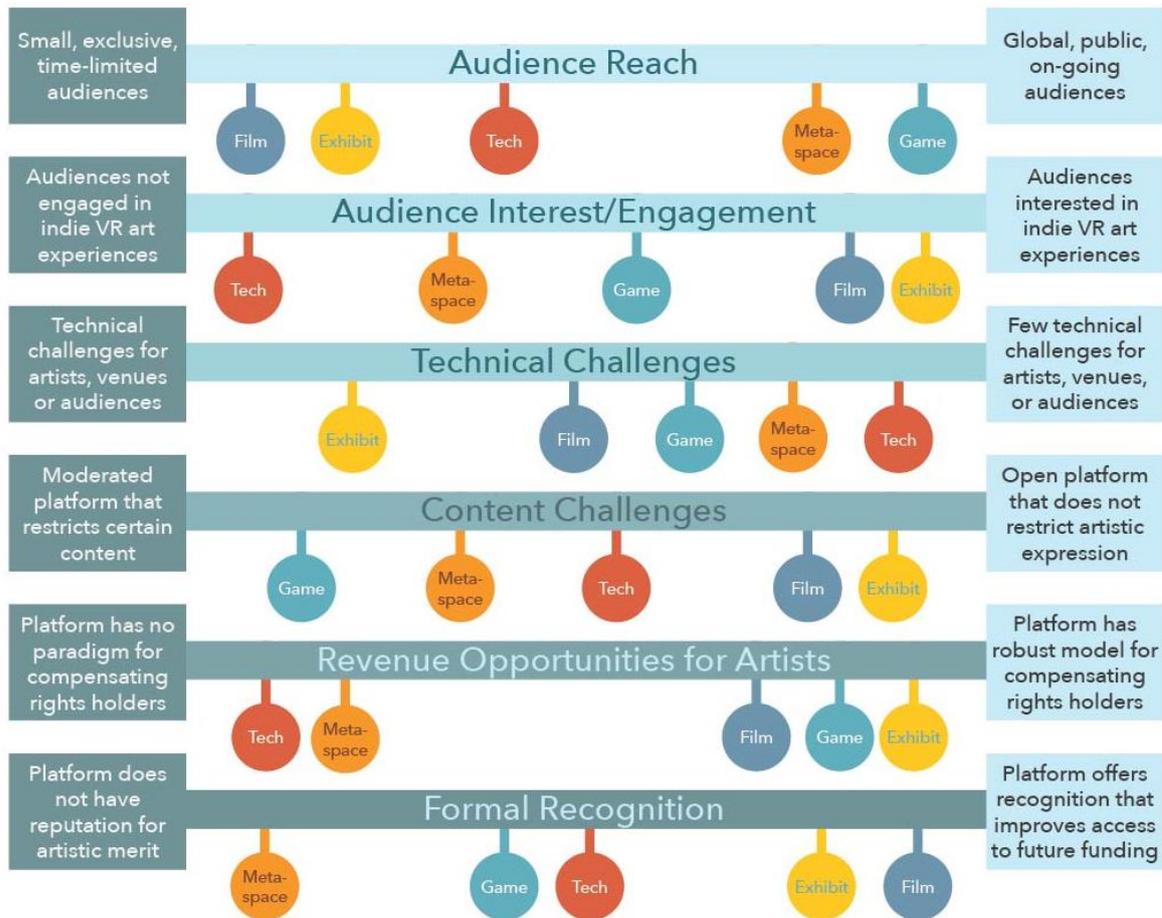
## Analysis Summary

The consensus of our research indicates common themes and needs. An XR distribution channel that would effectively meet the needs of independent content creators and potential new audiences would include:

1. **Access to larger audiences, over longer periods of time.** For example, at a film festival, a film can be screened for 200 people at once. A solo VR experience may only be seen by 20 people a day, and a high percentage of those people will be “VIPs”: jury members, press attendees, and higher priority attendees. An XR experience may be accepted to a handful of festivals in a single year, and be ineligible for screenings in the subsequent year. The very best XR content, following a cinema model, may be experienced by only a few dozen people during its viable “lifetime”.
2. **Access to funding.** In many European countries, film funds awards are decreasing, and many film festivals are reducing or omitting screening fees paid to the artist, making independent art less sustainable for the artist. When an XR experience wins awards and recognition, it increases the chances of future project funding, further tying the artist to the exclusive and prestigious film festival distribution model. However, games and other distribution models may create new revenue sources to support independent artists.
3. **Effective technological implementation and support.** In many cases, the artist themselves must be at a location-specific XR exhibition, in order to install, operate, and support the user’s experience. This need for the artist to set up, train, and often operate their own XR content naturally limits distribution possibilities.

Using these criteria as a measurement tool, we can evaluate current and future XR distribution models along these axes, visualizing different models.

**Figure 4: Insights regarding XR distribution models**



*Note: This visualization is based on the results of this research project.*

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# Perspectives on Existing and Emerging VR Distribution Channels

## List of Interview Subjects

### **Mark Atkin (United Kingdom)**

Mark Atkin is the co-founder of Crossover Labs, a production and curation company based in the United Kingdom. He is currently the programmer for several events, from workshops to art and film festivals around the world (CPH:DOX, Tromsø International Film Festival, Adelaide Fringe Festival, the Electric Dreams festivals).

<https://xolabs.co.uk/>

<https://cphdox.dk/>

### **Gayatri Parameswaran (Germany)**

Gayatri Parameswaran is a journalist, author, and director. She co-founded, with her partner Felix Gaedtke, the creative studio NowHere Media NowHere Media based in Berlin, designing virtual and augmented reality experiences powered by evocative storytelling. They work with nonprofits, media organisations, and brand partners to create impactful stories that inspire and engage global audiences. HOME AFTER WAR, and more recently KUSUNDA, were two of their projects that have been selected in many festivals and won major awards in the field.

<https://www.nowheremedia.net/>

### **Michael Barngrover (Turkey)**

Michael Barngrover is an XR researcher, developer, and consultant and is particularly focused on multiuser VR platforms and cultural heritage applications of XR. He also organises the ZeroEvent series of social and collaborative VR explorations for the XR Crowd.

<http://michaelbarngrover.com/>

### **Paul Bouchard (France)**

Paul Bouchard is the head of XR acquisitions and international distribution at Diversion cinema, one of the leading distributors in the immersive world. Whether it's 360° films, interactive installations, domes, or technical distribution systems, the young Parisian company innovates and tests in every location.

<https://www.diversioncinema.com/>

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### **Michel Reilhac (Italy)**

Former head of cinema at Arte France, Michel Reilhac is well-known for his work in the immersive field, director, producer, or curator. For the last 5 years, Venice VR has been a centerpoint of the creative XR community. For the festival itself, and the VR island, but also for the Biennale College workshop he personally supervises.

### **Antoine Cayrol (France)**

Co-founder and producer at Atlas V, Antoine Cayrol is now head of Astrea, a new distribution company dedicated to immersive and new tech content.

<https://astreammersive.io/>

### **Myriam Achard (Canada)**

Myriam Achard is the Chief New Media Partnerships and PR at Phi (Montreal). Despite two complex years due to the Covid situation, and apart from a few (too long) periods of closure, Phi was able to accompany several immersive events while renewing its ambitions with larger-than-life exhibitions at the Arsenal: the revival of CARNE Y ARENA (directed by Alejandro González Iñárritu, selected at the Cannes Film Festival in 2017), and especially THE INFINITE. The latter, in co-production with Felix & Paul Studios, offered a reworked LBE and collective version of their films THE ISS EXPERIENCE already available on Oculus.

<https://phi.ca/fr/centre/>

<https://theinfiniteexperience.world/>

<https://vr-to-go.phi.ca/>

### **Marianne Lévy-Leblond & Stéphane Nauroy (France)**

For the last seven years, ARTE played an important role as coproducer and distributor of major French immersive experiences (GLOOMY EYES, A FISHERMAN'S TALE, NOTES ON BLINDNESS, ACCUSED #2, ISLE OF THE DEAD, THE SCREAM VR...). Marianne Lévy-leblond, Head of coproduction and Digital Development, and Stéphane Nauroy, Head of Digital Project Management, tell us more about their notable change of involvement strategy since 2020.

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## Indie Online 2021 Interviews

Mark Atkin (CPH:DOX, United Kingdom)

### **What are your thoughts on switching your event to digital? Is that easier for you?**

*Mark Atkin – Organising an online edition for a festival, it just seems to take twice as long. There's no template for it. If we're working at a physical festival, we know exactly what we need to do and how long it's going to take. You can just organise people and installation. It's quite comparatively easy to organise. With digital, for a start, there's a huge amount of stop and go. You don't know if it's going to be completely digital or if it's going to be hybrid, or if it's going to be physical. And so you're constantly changing the plan. You've put a huge amount of work into a plan that then changes, then it changes again, and then it changes again. I suppose people's behaviours are different from the way they were at the beginning of the lockdown. There's no one system that you can apply.*

### **How did you organise your events in 2020 and 2021, regarding sanitary rules, public limitations etc.?**

*Mark Atkin – We responded quite quickly to the lockdown by creating Electric Dreams online, which was conceived purely 100% as an online event. We were just looking at how artists were using new tools to express themselves and to connect with audiences. And that worked really well! We were free completely from ever having sort of had a physical space. That was the concept, and there was a demand for that. But I don't think that there's the same demand for that now, and we haven't done it again.*

*We also managed to do 2 physical editions for another festival. The first one in September 2020, was just in that golden moment when you could do things together. But we made the decision there to have no shared devices of any kind, to be COVID safe, and everything was outdoors. Even though there were quite significant restrictions, the public there responded very, very warmly to what we did. It felt like a great outpouring of joy, that they were allowed to do something again, it works very well. And in September 2021 again, it went down really well, everyone loved it. Now we can start going back, hopefully, to some kind of more indoor location-based events as well as the outdoor stuff that people love.*

*For CPH:DOX. It was a struggle. We did think that we could be physical, again. And that's what we were planning for. And then we had to end those plans, quite close to the festival happening. I think in the end, you're going to be more successful if you design purely for one thing, and doing it well. I'm still uncertain about hybrid events. I think what happens is people just choose to do less things virtually, because they're remote. Whereas if you're actually at a festival, you dedicate your life to that moment and you do everything. And I don't think anybody's doing that at online festivals at the moment.*

### **Would you say that the recent lockdowns accelerated the switch to online with more possibilities to connect with a bigger audience?**

*Mark Atkin – I went back to a few in-person events now. And, of course, it's like 100 million times better than doing stuff online. After having had that experience of being at in-person*

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festivals, the whole idea of going back to doing stuff online just felt a bit strange. But the lockdown accelerated the development of the metaverse quite significantly. That was a good thing that came out of it, hopefully. But all of those building blocks for the metaverse got laid down, and the demand was shown to be there during the lockout. It's an exciting development. Plus, we can start going back to doing things more carefully in the physical world. We've been forced to think a bit more about accessibility, in example. People are starting to really rethink these things based on values, which is interesting.

I do think that there's a future for shared experiences in the metaverse. It works! I play a lot of (virtual) golf experiences and meet up with friends in different countries. We do chat about industry things, as you would when you get together because of a shared interest. It's really fun! Similarly, when you usually do get a very strong sense of being with people from other countries, when you can go to an art gallery online, a live performance piece (theatre, dance...), meet with the artist and talk about their work... I actually love doing that.

### **When you discuss this with the XR creators, what do they think?**

Mark Atkin – I don't get a sense of a huge amount of excitement from anybody about sharing their project online. For a start, if you've created a standalone piece – one single episode – that you can experience by yourself, it could be fine. I mean, I'm not that keen on watching virtual reality at home, or by myself. What we've always had in festivals is a space kind of interactive in terms of the audience. You're waiting your turn to go on to something, or just because you're watching how people are behaving etc. It can be a very social space! That means you're constantly having conversations with people about the pieces. And I don't want to just sit here by myself and do something and not have that conversation, which is generally what happens. Social VR experiences that you can do with other people at home, I really liked them. And that's a good addition. But for standalone projects, I just fear that they're just going to sink without trace.

### **Are we still too close to a cinema model? Is there any innovation to apply to a XR showcase in such events?**

Mark Atkin – I'm mostly working with film festivals. Working at the Adelaide Fringe Festival feels like a perfect fit for us. We have installations there, we sell tickets, we can supply revenue back to the people who made that work. And that seems like a really good model for us. At CPH:DOX we're in a space, it's not made for flat screen projects and it's not an art gallery. It's more in the art world, but there's also a performative aspect to it. I think I generally think it's a bit more like theatre. But if we take the distribution side of it, I don't think it's a good fit with the cinema industry to be honest, because it is completely different.

There are no dedicated spaces for us yet. Every time it's all about "where do we find the right venue"? We started with this close relationship with film festivals because it was primarily at film festivals that you could see innovative experiences, and they had room for us. Sundance, Tribeca, Sheffield. The filmmaking community picked up on it very quickly and wanted to use those immersive tools, but now it's across every single branch of the arts (dance, opera, fine art...). XR is now becoming a very important tool for expression. That means those things will start to sort of merge a bit better. There's also a large and growing audience for this, because there is now plenty of stuff to watch. It's exciting. And audiences are paying for those experiences. i.e., at the Fringe Festival ticket prices are fairly low. And that fits really well into

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that Fringe format because hardly any of the shows are more than 50 minutes long. I'm very fond of that model. We've definitely proved that it works. But we're still in a very experimental era.

It's a schizophrenic issue because working on an event, we think about the local audience, who are primarily first viewers in the XR field. And with the online venue, we need to ask about international visitors, who are often more aware of the subject. There's a bit of a juggling act here. And things like "premiere" just don't make sense in this context. It's just not suited at all for new forms of exhibition. That way of thinking for digital work just doesn't fit. It's also the case – and still is – so many years on, when you try to fill out the boxes for a film festival, about things like who's the director, who's the producer? These kinds of things like you immediately run into, I can't answer. These questions are inappropriate. And it's also the same with how things are funded through film. Funding agencies, right. They ask the same questions. But I'm forced to put something in that box at the end.

### **Do you have an example, as a curator, of an event you designed specifically for VR?**

Mark Atkin – When we started *Electric Dreams (Latin America)*, we did a free showcase in South London, in an area where 10% of the population is Latino, and primarily Spanish and some Portuguese speaking. We put on an exhibition of immersive work as an experiment to see if we could access that audience and it worked incredibly well. It was like 95% of the audience were Spanish speaking and had never experienced any kind of VR before. The other 5% were just local people walking through the shopping centre.

We didn't make any kind of concessions in terms of quality. It's just exactly what we would have put on it at Sheffield or CPH:DOX. That's something I want to get back to. I want to adopt that approach and then expand it, maybe take that on tour around the UK. What we're doing in Adelaide is charging tickets. And we do a box office split in favour of the creator. I think that's the way forward. If we're able to raise enough finance to take work on tour with a focus on specific communities, that has to be free.

### **In 2021, do you think there are enough good (quality and innovative) projects to bring more people into VR?**

Mark Atkin – Well, first thing, one of the tendencies with location-based experiences is there's a greater emphasis with them, with installations. That means it takes up a huge amount of space, and it's more expensive. If you're going to go down that route, you can only have a very small number of pieces. About your question, the answer would be YES, because we're going to have to leave behind a huge amount of really fantastic things that we can't show because actually, things are bigger and more expensive. Now, that's the way we're going to go at CPH:DOX. But that's also because of the nature of the festival, it's very much on the quality of art and – of course – we're very happy to select these installations. Next time, there's not going to be many in the selection.

As for where money goes to fund VR projects (which attracted 100% of the money dedicated to interactive works), I guess that's a learning process. During the lockdown, a lot of funding was moved away from location-based entertainment. And with the production timeline for most of those projects, there's a lot of money which went into stuff that's probably not going to find an audience because it feels a bit dated now.

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Gayatri Parameswaran (NowHere Media, Germany)

**What was your first immersive project, and what did you expect from the VR industry regarding distribution at that time?**

*Gayatri Parameswaran – The very first project we did was IS THIS LOVE? about domestic violence, with a non-profit organisation called Love Matters in India. We knew from the beginning that the distribution would be difficult. No one had headsets in 2015 or 2016 in India. And we wanted to target young people, especially 16 to 22 years old. The film was about educating together, raising awareness about what constitutes violence in a relationship. The research from the non-profit that works on the subject have shown that young people are not able to tell the difference between control and love in a relationship.*

*We knew that our target audiences were in urban places. So in partnership with Love Matters, we chose Delhi to be the city when we were going to distribute it. We thought about working with universities, colleges and schools to organise screenings. But this is a taboo subject, and no one accepted it. And finally Love Matters met with the public transport system in Delhi and told them about our project. We knew that students and youngsters used the metro. We sold it as an innovative marketing campaign happening inside a subway station, and they said yes! Our pitch was to show a 6-minutes VR film, which is long enough to wait between two trains (perfect!), and offer a new journey aside from the day-to-day trip.*

*Because we have thought about it right from the beginning, the distribution of this was quite integrated into creating the piece as well. It really worked because we had a really strong partnership with a non-profit who had good connections locally. The exhibition went on for 10 days with Gear VR headsets. I think around 5000 people saw the film. We did a study to see how the film changed minds about the subject. It showed a pretty high increase in awareness, especially on specific topics like having financial control within a relationship. It's not a purely artistic project, which impacted the way we distribute it of course.*

**Was everything different when you entered the festival distribution circle?**

*Gayatri Parameswaran – We started to get selections with our next project, which is called HOME AFTER WAR (2018). It premiered at the Venice Film Festival, went to SXSW and many others. We were glad to see support from so many events! Now, having been in the XR space for the last four or five years, I can say that some festivals have more support for artists when it comes to giving resources. Of course, you want to show your work in the best places, but it's also about knowing where it can be respected and supported. I also feel sometimes I gain a lot from going to smaller events. Because there is a more intimate group of people, you can feel better relations or have more connections. And if it's about building a network, I really think this is the way. For us festivals are great to get press coverage. We use festivals as platforms to gain visibility of our work. At the end we can discuss a better strategy for impact distribution because at the moment, the monetization is really not figured out as we are.*

*And it's also about targeting your audience. We screened HOME AFTER WAR at the United Nations three times in Geneva and in New York to a very specialised audience. There were policy makers and decision makers who were working on the issue of improvised explosive devices. The piece talks about raising awareness about that, and the reactions from that expert group were quite different from the reaction you get from a general audience. From the experts,*

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even if they do field trips in Iraq, they know the region etc. This project really helps them be reassured about what they are doing. That's very valuable feedback. And for a general audience, most of the time is about discovery. They won't go to Iraq, they almost didn't know about the issue. And for both audiences, it has a different emotional hook.

**Do you receive any help from the festivals to showcase your films, especially from the big ones?**

Gayatri Parameswaran – I haven't shown anything at Sundance, so I can't speak about it. But Tribeca helped us in a big way, especially in a Covid-year. They have producers and a highly professional staff who are helping take care of a lot of things on the ground. For Storyscapes they also offer a Filmmaker stipend for our expenses, that you can choose to use to build your installation or pay for your travel expenses or however you please. They also helped with setting up some tech for the installation such as projectors and headsets etc. And there is a final cash prize if you win the Award! In other festivals it's more difficult to find help, they don't have resources. As an independent production company, we have been lucky to find support from tech companies like Oculus (Meta?) or non-profit co producers to work on this distribution part of things.

Obviously, we say yes to basically whoever wants to show our work. We are not holding back to meet with an audience. We always ask if there is a licensing fee or a screening fee involved. If yes, then great. And again, the smaller ones are more open to a screening fee than the bigger events. The sad part of things is the online distribution. If we want to earn some money, we would have to charge something for it. Because for some projects our budget comes from, partially, public and regional funds, we can't put it online for free. We have reached, I would say, almost 200 000 downloads on Oculus with Home After War. It's not always properly people watching from start to end, but that is more than any exhibition or festival audience. And that's where I think the Quest is interesting to develop a real audience.

**How important are the festivals for you?**

Gayatri Parameswaran – When you look at Venice VR strategy (or NewImages) with their satellite events, it allows audiences around the world to watch your piece – and that is fantastic! As I said before, for us festivals are just one part of the deal and we always have another distribution aspect in mind to show our projects, such as independent screenings. We're doing this for KUSUNDA in Nepal, and that's the most important for us.

And for this part, we are doing the distribution ourselves. We do in-house screenings, with small communities. It's easier for us to target these kinds of screenings, to understand who the audience is. For KUSUNDA, we also released a 360 version of the experience. It's not interactive, it's not 6DOF but it's enough to show it. Plus, when we started the production there was no Quest. And we couldn't afford to produce one. So we continue to develop the PCVR version, but then we could easily create a 360-film out of in-game captures that can be easily distributed. PCVR games in remote Himalayan areas are not the best to distribute!

As a VR artist, there are many possibilities to exhibit in museums, art centres or even game conferences etc. It really depends where your network is and where you want to go. There is a unique and interesting position for immersive works formed at the intersection of all these different industries. If there is more exchange between these themes/bubbles, it would be

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*interesting. I mean, you cannot buy me a VR film in the same way as a film because people are struggling to fit in a theatre and watch a film together. That is a fundamental difference, and you need to start finding ways that are innovative and interesting to engage audiences.*

### **Do you think there is still a lack of distribution companies for VR content?**

*Gayatri Parameswaran – Yes, definitely. I would be happy to work with the distributor who can come in, who can take the product and understand where it needs to be. I would also like to see it go beyond the festival circuit. I don't see festivals being a great distribution model in the way that is working right now. There is no way to monetize it. There's no way to reach a broad audience. So I would love to work with distributors or companies that are distributing to museums or other venues, galleries and places like that. Once KUSUNDA is done with the festival circuit over next year, we hope to discuss with some distribution companies to start doing this.*

*We learned a lot from HOME AFTER WAR regarding “what to do, what not to do” for distribution. And with installations, what we learned is really to build a modular version that is going to be easy, that's going to use cheap materials, easy to build/ easy to break down. With HOME AFTER WAR we had a very complicated installation (multisensory, screens...) too complicated to ship. We had to discard that idea. Also in the distribution setup you need something easier to port between versions. For the Quest, or PCVR. It's more a question of software/hardware alliance in its own way (to just click and export different versions of one project). A multimodal tool could create less pain points for distribution and allow us to reach a larger audience.*

*And we are doing our own promotion. It's also a lot to do. Especially as a company that was created as a creative and production studio. But you end up doing all of this communication work, which can be a plus or minus. Sometimes I'm happy to know so much about so many different things (press, social media...), and sometimes I just feel like I just wish I could just do my thing and let someone else deal with this.*

Michael Barngrover (XR Researcher, Turkey)

### **Can you tell us more about the ZeroEvent initiative?**

*Michael Barngrover – In 2021 we had our first XR Crowd conference in May. Since then, I worked on Venice VR virtually and then hosted a satellite site again this year in Istanbul with Euromersive Turkey. I did the same with VRDays Europe this year, working for the main site in Amsterdam as well as hosting a satellite site in Istanbul. Aside from that I'm working for universities in Istanbul and Europe on developing projects and training students and researchers to use immersive tools. ZeroEvents is still an active group where we discuss the latest news around virtual worlds, and we do hope to keep the talk alive!*

### **Is the rise of virtual worlds (and metaverse) an opportunity for VR content?**

*Michael Barngrover – Well, you have to tell me what you mean by “metaverse”. That's always the issue for the person talking about this trendy term, they then have to define it. In fact, we don't have many virtual worlds ready for distribution inside of an immersive metaverse platform. It depends on what kind of content we're talking about when we say “virtual world”. If it's a 360*

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video, then many of the platforms can host and distribute that. I don't see a whole lot of 360 exhibitions done on these immersive platforms, at least not from the big festivals. I think that's usually because of the size of the video content. Proper VR pieces can be really heavy video files and they can't always be streamed so easily. You can choose to download them before viewing, like 360 videos were done in exhibitions in the MOR (Museum of Other Realities). If you pre-download content, then you can also feature interactive 6DOF experiences in such platforms as they have done for Cannes, i.e.

Two really popular immersive exhibition platforms have been VRChat and Hubs, but I don't personally think that either is really a good distribution platform. Good platforms for immersive experiences, sure, but not for distributing diverse XR content to audiences. They both require content to fit the constraints and templates of their respective platforms. In 2021, Sundance New Frontier did quite a bit of collective viewing of films in their immersive webVR platform, but it was mostly for traditional 2D films and some 360 videos rather than for interactive VR pieces. Some people like viewing 360 films together, but I don't think that the camera perspective really facilitates multiple avatars viewing it together in headsets. I've never been a big fan of it. In fact, the only platforms that facilitate a broad-spectrum distribution of content are bespoke platforms such as inVR's META.SPACE and the MOR.

But bespoke platforms don't scale easily. As a curator, you have to work with them like a project, and they build up the event for you. And in the end, it can still be a huge download for the end-user! That's what it is like for MOR when they host a major festival. That's completely fine however, as there is not much choice if you're a curator and want to craft a unique experience for your audience. Both platforms are quite good at what they do and really there are limits to what can be done in this phase of the medium. The VR art content itself is usually big, uses non-standardized formats, and is simply not optimized for digital distribution. They are artistic and creative achievements, not achievements in consumer software. Bespoke platforms can create more customized solutions for specific experiences, but they are options because the polished consumer platforms don't offer all the right options for the immersive festival use case. I think that preloading selected works into a bespoke immersive platform is a completely acceptable distribution model for a festival – up to a certain number of works, like 10 to 15. 30 to 40 would be too much in this model. . But few people can download that successfully. I think these bespoke platforms are the most elegant and simple solution for curators, yes, but not the most useful method for distributing content to a large or broad audience.

### **Festivals are selecting contents, but how do you stream an entire line-up in VR?**

Michael Barngrover – It's probably not possible to exhibit all kinds of content in the same VR space, even with the bespoke solutions mentioned before. That was something that we identified in the early days of #ZeroEvents. A lot of people said “I want to demonstrate Beat Saber in Engage”. It's like “show me Windows in iOS”. Yes, creators can go through the effort of doing that, but they would have to recreate it. It's just a lot of work. These interactive VR works are separate pieces of software and we want them to be interoperable! That would be great, but artists come from diverse backgrounds and travel different journeys when they come to understand VR and how to create it. To ask them to harmonize their creative processes with other artists doesn't sound like something practical or even desirable. Like social media, tools like Unreal and Unity or platforms like VRChat and Altspace are different products serving sometimes different objectives, but they in some ways are also competing with each other.

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They don't seem to see it in their best interests to attempt to make it easy to move projects back and forth between them.

The last two years, Venice VR Expanded has been a great example of how to recognize and leverage the unique value that a platform offers. There was an online festival (VRChat) that was the closest thing to a real world destination you can imagine. I could go there, and if I get bored or simply want to go off on an adventure with some people I just met, I can world hop and just go somewhere else without leaving the virtual festival platform. It was sort of that awesome festival atmosphere we were looking for. As an event organizer, I know you can go see something that I don't have to take responsibility for. You know I don't have to maintain your attention, but at the same time you, the festival attendee, will have a great time and find plenty of things to do. Their virtual exhibition works, and Michel, Liz did an amazing work with it. Of course VRChat is not the Venice island, it's VRChat. In 2020, it was Venice VR in VRChat. In 2021, I felt it was a VRChat festival organized by Venice VR.

And that's not a bad thing because it meant that the experience in VRChat was 100% a virtual world experience. It didn't solve the problem of exhibiting in a virtual place. But it expanded the festival content to include stuff that was possible online. And I think that was a wise approach. I mean I really loved the chat and I really loved that community feeling. There are some amazing (creative) things on VRChat. If I'm a creative person, that's a great platform to be. It just doesn't solve the distribution issue for diverse works made outside of VRChat.

### **Will we see a continuation of hybrid events with the same level of virtual and physical activities, conferences, streaming...?**

Michael Barngrover – I don't think so. The main issue is the money, because it's not cheap to organise a virtual festival, or at least it shouldn't be. It will become difficult to afford to build both virtual and physical venues. You have to choose. Again, Venice VR and the Biennale are a red carpet, premiere world class event. They ran a virtual festival and satellite venues for 2 editions, and that was a great achievement, but everyone is eager to go back to the real VR island. I know I am!

I wrote a white paper for the Eurofest XR association, which was released in early 2022, where I said that you need to go where your audience is. If you go further down in VR environments, that best serves VR-savvy audiences, but it will not be for your regular and physical audiences if they are not ready to follow. If you want to find new audiences, VRChat and other platforms have their own communities, which are not necessarily the kind that attend festivals. They may be gaming or other kinds of creative communities. It doesn't mean that you won't meet people and discover new festival audiences in these platforms, but your festival format or selections may need to adapt to better serve the interests of these communities if you target them.

Defining your audience can be difficult. VR industry people are not a real audience, they are way too diverse in their interests. I think that's fair to say. You need to be more specific. If you take Raindance in 2020 and the work of Mária Rakušanová, it was successful with an independent-creative community. It featured really gorgeous venues, the best I've seen for a festival, but that was only possible because they clearly focused on a specific, PCVR-friendly VRChat community. The example of GoEast, curated by Georgy Molodtsov, is another interesting case. AA festival that was small and got bigger because it gave up the geographic limits by using VR. Now their attendees are global, and how do they adapt? I would transition

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permanently to being an immersive festival. But again, what content would I show? Probably 360 videos rather than interactive 6DoF pieces.

### **What is the value of virtual worlds for VR events?**

*Michael Barngrover – That’s another issue. If you want to promote an immersive experience, who do you go to? Would you pay Recroom to promote it? At what price? VRChat is still trying to understand what to do with the festivals. They often ask for high numbers – even if it’s open to discussion. Basically, they don’t know the festival business model yet, or their sustainable role in it. Yes, you can do a lot in VRChat or even Altspace. But what is the cost? It’s a complex conversation for a curator or an organiser.*

*There are no built-in ticket systems on these platforms, at least none that I know of yet. VRChat is not that open to the general public, it’s not appropriate really for non-VR users. WebVR, like Mozilla Hubs, is better for a broad audience, as a proprietary, web-based thing. From what I was told, Sundance New Frontier loved webVR, and they’re using it again in 2022. But – again – they were not really exhibiting complex immersive content in it. We’re still trying to find the best place for an immersive exhibition. One side of the internet that is looking for an online platform for exhibition are the NFT art people! But it’s slightly different as they don’t have the same use. I guess there is still a need for a promotion-streaming platform for 360 contents, but is there a need for all the possible interactive experiences?*

### **Is there still a future for 360 content?**

*Michael Barngrover – Working at a Venice VR satellite site, I was surprised to see people actually being very passive in terms of choosing a piece. We’d tell them about the selection of works, hoping to trigger a spark of enthusiasm, but audiences typically were just down to see whatever we, as hosts, wanted to show them. If you’re a very passive audience, you probably want a passive experience. Venice VR was around maybe 60% 6DOF projects this past year I think. I was a bit surprised to see so much 360 (3DoF) content, but it was helpful to have so many of those pieces for our guests this year in Istanbul. I discussed the situation of 360 films with VRHAM! And Laval Virtual people, and actually it remains an essential part of an exhibition portfolio. It’s partially because some audiences still prefer it, but it’s also because just the access to equipment is easier. Even for Laval Virtual who has tons of equipment! They rely on mobile VR. At VRHAM!, the vast majority of their engagement with a broader audience beyond VR people was through a virtual app (available on Viveport and the Oculus App Lab) dedicated to 360 content.*

Paul Bouchard (Diversions cinema, France)

### **What was Diversions Cinema working on in 2021?**

*Paul Bouchard – In 2021 we were present at several events, despite the pandemic, and in particular at the end of December for the Red Sea Film Festival in Saudi Arabia. We were in charge of managing the installations and the coordination on site, alongside curator Liz Rosenthal and event producer Mike Salmon. Moreover, on the distribution side, our catalogue is doing well with a lot of selections in the festival circuit including MONTEGELATO (Venice*

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Biennale Cinema), *STRANDS OF MIND* (Annecy FIFA) or *MARCO & POLO GO ROUND* (Tribeca Film Festival).

*On the event provider side, things have picked up well since September and our team has been mobilised on several festivals and physical showcases. Some exhibition places have also opened! Nevertheless, there was a real "false start" in 2021 since we could only work for half of the year. Our hopes are renewed for 2022 so that it starts again at 100%, that the projects succeed etc. We are not giving up!*

*Since the health crisis, our strategy has developed towards new actors, especially in the digital arts sector. The objective is to find new spaces of diffusion, new venues, new partners. Thanks to this, we realised that more and more places are familiarising themselves with immersive creation and, for some, are investing in equipment and services for virtual reality.*

*Still, it is not yet completely won. There are still a lot of things to settle on the issues of distribution and exhibition of VR, but more and more circles and institutions, exhibition places are familiar with it. During the last two years, with the Covid, we could feel a reflection on the creation of online, virtual events. With the return to a form of reality, there are needs that are better understood in recent months, a creation in virtual reality much more visible and understood too. Our discussions are much more fluid and we have the impression that the public is more receptive as soon as they can discover the works.*

### **What are today's limits for the expansion of VR?**

*Paul Bouchard – The first reality is the budget! But this is not so much a limitation as a reality to be understood. The interest of some places, some programmers, comes to us without really being aware of the cost of such installations. Even if it's for a short period of time, you have to rent the equipment, have a certain number of staff and mediators trained and available on site. To overcome those limitations and keep building a VR distribution network, in 2021 we launched the Galaxy Network with a series of European venues (in the broad sense). This is inspired by the satellite venues of certain festivals such as Venice, which allows us to offer temporary exhibitions in a dozen cities at once. We had a coordinating role during Venice, and our wish was to federate this network of places. Each venue had different skills for exhibiting this type of content, and we worked together to get them used to VR. Some were obviously already experts in the field!*

### **You're talking about the Galaxy Network initiative. How does it work?**

*Paul Bouchard – The big challenge for this network is obviously to last, to evolve over time. We obviously want to set up a tariff for theatres, with a framework contract and revenue returns to producers and creators. And this will be even more interesting if the number of venues increases! We also want to promote the whole sector by selecting the best experiences from the last 5 years. All this requires work, promotion and we hope to have set up a system that benefits everyone, and allows the Galaxy Network to continue in its second year. We are starting to do Year 1 reviews with each venue.*

*Each partner of this network, these are venues that can be very different in terms of location in cities, and in terms of public (targeted or captive). The feedback we've had is very good, but it's not necessarily the same audience. In Paris, we worked with Le Cube in Issy-les-Moulineaux*

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and they were very happy with the attendance rate. They received a very family audience, with many people coming for the first time. It really fulfilled the objectives that were targeted, despite the Covid year. We also had positive feedback from Barcelona, Istanbul and Milan for example.

### **As a distributor, what is your opinion on the creative side of XR?**

*Paul Bouchard – If we look at the Diversion Cinema catalogue, there is a great diversity of experiences. Most of them are very creative, but in three years we have presented documentaries, fiction, and more experimental, radically artistic works. We have just added new entries with 360 content. There are new broadcasting opportunities, new demands for this type of content. And 360 movies are the perfect entry point into the immersive world for new venues or partners who are not yet used to more interactive content. It is very accessible, financially and technically, for a starting offer. We can synchronise headsets (Pico...), launch remotely. In terms of distribution, it is easier but also very interesting. Artistically, 360 videos have evolved a lot and it's exciting. Some contents like STRANDS OF MIND, MONTEGELATO are self-sufficient, and the public is very well hooked. The festivals too. And these are high quality, original contents that will interest cultural places, places outside the festival circuit.*

*On the interactive part, or even the installation part, we obviously have 6DOF, interactive works and digital art installation (notably CAPTURED). They can sometimes have 3DOF versions to facilitate distribution: the figures show that the simple version is preferable. MARCO & POLO GO ROUND has benefited from several versions (6DOF, 3DOF...), but without it being an obligation for us. Simplicity in installation, but also in localization – if this can be avoided, all the better. We try to prioritize works that do not have its brakes, even if obviously we defend the completeness of the experiences that we diffuse. We have to captivate an audience that is just starting out, not very fond of video games. But these are criteria that we take into account when selecting new entries to the catalogue.*

### **How do you see new competitors in the XR distribution area?**

*Paul Bouchard – I am very happy that we have new competitors coming in, like Astrea. It's very exciting! If you look at the market, at the festivals, a lot of works get noticed, win prizes but then disappear. If this can help productions, it's a good thing. And a sign that the market is starting to exist. The professional network is being built little by little, and that's also why at Diversion Cinema we also offer technical services for other companies. We encourage working together!*

Michel Reilhac (curator Venice VR, France-Italy)

### **What is the outcome of 2 hybrid editions of Venice VR (Expanded)?**

*Michel Reilhac – We have organised two hybrid editions for Venice VR, in 2020 and 2021. The first year in 2020 had a very high attendance as the access was publicly open and free of charge, also with this system of 15 satellite venues that was very positive. The 2021 edition was less of a success in terms of attendance. The main reason was that access was not free any longer and the fee of 100 € was too high. There was also a more complex accreditation system, and all of this limited access to the 2021 edition. This was a disappointment, but also a demonstration that the Venice VR audience was not yet ready to come at any price. It also shows that the very strong attraction of our event lies heavily on its physical dimension on VR*

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*Island. There is an overdose effect of all events happening online. I believe strongly that we all crave and need the physical dimension of events back into our personal and professional lives. And when we do not have a choice but attend only digitally, then access needs to be made super simple. There was too much friction in our access system.*

*On the side of how our world was created in VRChat, there was a huge improvement. Everything was more intuitive, and everything worked perfectly. But its impact was limited because of the complex access initiated by the festival itself. You have to understand that we have to work with the regulations of the Venice Film Festival, which remains one of the most important film events in the world. It is a huge logistic and administrative machine that runs all the different massive events that make up the Venice Biennale (Art Biennale, Architecture Biennale, Film Festival, Dance, Theatre and Music Biennale, the Biennale College). Clearly, these overall rules were unsuitable for Venice VR. Immersive is an art form in the making and it has neither the same criteria, nor the same needs as any other traditional Biennale event.*

*Still, there are advantages to being fully associated with a film festival of the scale of Venice. The VR section, in selection and official competition, benefits from this worldwide aura, with prizes awarded with the feature films etc. This gives us legitimacy and visibility at the same level as cinema, and it is irreplaceable. I therefore ardently defend our place in Venice. For the public, but also for the press, the prestige of virtual reality comes from its presence at such events. We must not neglect the need for recognition in an emerging medium.*

#### **And for the future, what lessons do you draw from it?**

*Michel Reilhac – Our challenge now is to become a physical event. We will be back in Lazzaretto Vecchio (our VR island) in September 2022. The full scale exhibition that we are known for will be expanded with new additions that we cannot disclose for the moment. IRL meetings, networking which make all the originality and effectiveness of such an event will once again be our main focus. The virtual venue could not offer the same level of quality of exchanges. But at the same time, we know that we must continue to explore virtual worlds, online performance-based works, natively remote works accessible on social platforms. We also need to look into the new ways of bridging the real world and the virtual platforms with new interfaces. Venice Immersive (the new name for Venice VR as of now...) must have both dimensions. It remains to be seen how, and with what budget.*

*On a personal level – but it is a shared observation around me – I feel a huge digital fatigue after two obviously complicated years. And it's worrying, because the pleasure I have in exploring all these virtual worlds, and now the metaverse (or social VR worlds), is dwindling when it's not part of a real, physical event. The value of virtual editions is measured against our physical existences. At the moment, all of our professional or personal exchanges are done digitally and online.*

*I consider that the pandemic demonstrates our need for physical experiences. And they are irreplaceable! Organising a virtual edition is fascinating, but it is far from replacing a real world event. Liz Rosenthal and I are thinking more and more about how it can complement and not simply duplicate Venice Immersive. We need to avoid copy and paste, and think about specially created virtual events.*

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## **What can you tell us about the satellite venues and initiative?**

*Michel Reilhac – Creating the network of satellite venues was initiated to bring Venice to the public in a crisis situation. If we manage to return to a physical event in 2022, the context changes completely – and the network of theatres becomes a form of distribution by nature. That's why we are talking to the producers so that there is a return of revenue for the rights holders (which raises many technical questions). I talk about it in particular in France with PXN. And this is normal, especially since the satellite runs are an actual mode of commercial distribution. On the other hand, it reinforces the exposure, the mediatization of the works through the prism of a selection in Venice – and the marketing efforts of each satellite venue.*

*What's interesting is to see new venues coming into the satellite network. Some independent producers have even rented theatres to show our selection. This explains why some of them couldn't come back in year 2 for reasons of time or funding. But as far as institutions are concerned, all of them proposed our line-up two years in a row – except for those closed because of the health crisis. The venues affiliated with Venice have also continued this idea with Diversion Cinema by creating the Galaxy network.*

## **What do you think of the metaverse buzz?**

*Michel Reilhac – The metaverse already exists, not as one all-encompassing interoperable platform of course, but as a myriad of game platforms and social platforms where millions of people are flocking 24/7. My platform of choice is VRChat and I am amazed by the range of worlds, games and experiences that are created in it by passionate individuals who do not consider themselves artists but who are on par with the most creative content we are showing at Venice Immersive. Meta (ex Facebook) is simply trying to jump on a bandwagon that is moving without them. Their heavily controlled and censored vision of the Metaverse is toxic and without interest. It fully contradicts the need for freedom of expression that the Metaverse represents ideally. The question is the overwhelming power that Meta exercises through their quasi monopoly for headsets via Oculus and how they are both pulling the community forward thanks to easier and cheaper access to equipment and controlling content. I hope we see independent alternatives spring forward...*

## **What kind of audience do you meet? Are people still surprised by VR?**

*Michel Reilhac – The discovery effect for the public still exists. And it will continue for a while. Many people, including friends, have bought headsets recently (Quest) to better understand what it's all about. And their first reaction is that a lot of the content is of lower quality or even disappointing. In festivals, we offer quality programs, and therefore the feedback is very positive. It's more complex in the stores; interest can even drop.*

*To ensure quality, we have gathered several immersive events and festivals in a collective: The Festival Collection. Our intention is to be able to gather certain contents curated through our selections, whose quality is assured, and offer it online. Like a common label, which could go through existing platforms. Discussions are underway.*

*Some works emerge quite easily from the festivals, and are bought by the few platforms. But this remains the exception. And they have to fit the filters (moral, editorial...) of platforms like Oculus or Viveport. Nudity, sex, politics, are a no go... Moral censorship is huge, and eliminates*

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*bold or provocative works. We need an independent (and European) platform to emerge that can support this type of work.*

*Examples like MOR are not broadcasting platforms, and remain too complex to be practicable (for the general public). Some projects, especially in France, have tried to propose something but the technical resources (servers...) and the costs are too important to propose a platform with a real profitability. An effort from public authorities, why not in France, would allow it to launch this kind of project by giving it some time to find its business model.*

Antoine Cayrol (Astrea Immersive, France)

### **Why launch Astrea now?**

*Antoine Cayrol – We created Astrea because the services we were looking for did not exist. We had started to distribute our own projects at Atlas V; it seemed logical to accelerate by creating a totally independent structure to consider more direct actions around the distribution (and publishing) of immersive works. With a few exceptions, there are still no existing offers on the market, likely to do publishing, international sales, LBE, localizations (in 7 languages)...*

*Mk2 tried, but they are closed now. I expect the market, which is booming, to offer new opportunities to those who would like to start. And to see other specialised companies arrive. In the meantime, there are things to do and Astrea is there for that. But it won't come from the video game industry, for which the VR market is too small. If the market evolves, why not...*

*Yet there is potential in all places, physical or online. We have to take into consideration a growing industry, in constant evolution, and bet a little on everything. Moreover, on a global level, not all countries are at the same level of technological advancement, nor of consumption habits of immersive content. In Brazil, until recently, there was nothing, but things are moving. In China it is consumed in VR rooms (arcade, LBE...) but little online. So we have to be present everywhere, and above all build a reference brand.*

*It's the right time to launch a company like Astrea, especially when you see advances like some VR content promoted on Steam, the Half-Life: Alyx effect... And we're at the beginning of something, the guaranteed minimums are negotiated at acceptable rates – taking into account the reality of the market. Outside of video games, we offer short content that, by definition, cannot be sold at a high price. We can accept to pay 3 euros for a work of a few tens of minutes, and it is also that which will give value to the work! Moreover, let's not forget that on Steam, for example, the user can get a refund within 48 hours... You have to calculate the selling price to keep it fair.*

### **Is there an online audience for VR?**

*Antoine Cayrol – Steam, App Lab... The difference is that Steam already has an existing market. Oculus has to do more work, smoothing out its content to reach a large audience. But all of that is going to line up soon. We're doing great sales in China on Pico, in the US with Quest users. We're making progress! And there are many examples to take from video games. BIOLUM is a good example of content that video game enthusiasts can enjoy, and that we can offer at a reasonable price.*

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*The question of promotion is more complex. As far as festivals are concerned, we have learned to appreciate press coverage. With Astrea we work more with influencers of the sector, whose audiences will buy our works. We are starting to get results. But we need to analyse this more precisely in order to draw conclusions and an operating mode. I can say today that the advantage of the platforms is to let the contents live; I still sell some films like AYAHUASCA every month, without any promotional campaign on our part. I obviously put aside the free contents (NOTES ON BLINDNESS...) whose performance can be exceptional... but without any purchase cost.*

*On the Oculus side, the opening of App Lab is a huge advantage. So is the Quest. There are real benefits for all the producers who have content on their platform. But you have to test! I have a lot of freedom with Astrea, which allows us to take risks. Some things work, others don't. The only constraint is the lack of users, and a small market. But once again, it's growing! Astrea is building a catalogue (40 titles at launch) that will grow.*

### **And for LBE?**

*Antoine Cayrol – LBE (location-based) is a flourishing market, despite the pandemic. We manage to federate places in the USA, China, Europe, Taiwan, South Korea, etc. The hardest part was to build our offer, between the rental periods, the equipment... The goal, as a distributor, is to define a paying and (now) uniform offer for everyone. We obviously keep an eye on piracy, even if it is a risk inherent to our universes.*

*We're watching the trends closely. I'm a big believer in the potential of 360 content – for the next two to three years at least. But I see Telcos looking more and more at AR to align with the rise of their 5G packages. For the rest, we're still exploring and testing.*

### **Myriam Achard (Phi Centre)**

**You launched VR TO GO during the confinement for a local audience in Montreal, which has since been renewed, what is the outcome today?**

*Myriam Achard – It is very positive. VR TO GO was launched at the beginning of the first lockdown in the spring of 2020. It is an initiative that has survived, and will survive this period. Phi reopened in early 2021 and VR TO GO programming has evolved to announce our exhibition THE INFINITE. I hope to offer new programming in the spring of 2022. It's a great tool to democratise virtual reality, and to have an offer at home. At the same time, we understood that part of the public was reluctant to return to public places, and that we had to respect that and give them this possibility.*

**By proposing a similar theme to the exhibition THE INFINITE, was the audience the same?**

*Myriam Achard – With THE INFINITE, nearly 80% of the audience was discovering VR for the first time. And we saw that part of this audience wanted to continue the experience by renting VR TO GO headsets. There is a domino effect, small but present. It broadens our audience.*

*VR TO GO has also been the object of collaboration with the 104 in Paris (France), the Bozart (Belgium), Portland (USA) and the Luxembourg City Film Festival. Other places are also*

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*interested in the continuation. There are no important financial stakes here, but the idea is to prove that this system can work throughout the world and over time.*

*With CARNE Y ARENA, we took over the experience two years ago by optimising the access. 6 people could go there per hour before; we tripled the rooms, which allows us to welcome 14 people per hour. Financially it is less interesting of course, but it was sold out on the whole and we managed not to lose money.*

### **70 000 people, 4 months of presentation: what is your assessment of THE INFINITE?**

*Myriam Achard – This is an unexpected number of entries in the context of a pandemic. We are delighted with this success! We learned a lot during these months of operation, and this allowed us to evolve the exhibition for Houston (from January to February 2022). In fact, even in Montreal, everything has evolved week by week. We are progressively integrating new modules from the Felix & Paul Studios films (the spacewalk for Houston), but also some technical innovations, etc. We have to keep in mind that this is the biggest project for Phi, developed in the middle of a pandemic, so we are happy that the public is responding.*

*Financially, THE INFINITE is a success too. We were sold-out from start to finish, and the show is clearly profitable. It was important to launch THE INFINITE at home, with Felix & Paul Studios, where we had more control of things. And then to see the reaction of people! It's irreplaceable to have a live audience. Now he will travel and meet new audiences, especially in the United States.*

*With CARNE Y ARENA, these are two major projects. But THE INFINITE is one size bigger. In both cases, the priority is the user experience; we have to make sure that the equipment is ok, that there are enough staff... THE INFINITE is more than 100 visitors per hour! With so many people, the experience must remain positive. We have to find places that are suitable for this type of operation, or adapt existing places. In Houston, we had to work with a room designed for corporate events. Part of our team went there to install everything, train some people and only one person from Phi stayed for the duration.*

### **Are there enough venues to host such immersive events?**

*Myriam Achard – There are many venues that could host them, yes, although we haven't identified all of them. THE INFINITE will go to Seattle after Houston, and possibly a European tour after the US. We are waiting for some confirmations... We need the interest of the places first. CARNE Y ARENA will open in Dallas, then in Oklahoma, Spain in summer 2022... Everything is moving, and with different interests: museums, more commercial places...*

*The pandemic of the last two years has reshuffled the deck considerably. We had to convince a lot of people in the summer of 2020 to get the exhibitions open in time. Will 2022 be in the same vein? We'll have to learn to live with Covid and move on. The public who discovered THE INFINITE or CARNE Y ARENA are now curious to see what we are going to propose at the Phi.*

*At the Phi Centre, we were able to reopen at the beginning of 2021 with an exhibition entitled "Three Movements" during the summer. Obviously Montreal welcomed fewer tourists, our capacity was less full... We are still satisfied with the public who came anyway. We are also in charge of the circulation in North America of the experience WE LIVE IN AN OCEAN OF AIR of*

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*the British collective Marshmallow Laser Feast, which we also presented at the Phi in 2021. We may be presenting it in Calgary soon. It worked very well in Montreal. In 2022 the Phi will celebrate its 10th anniversary with a rather sound exhibition, and next summer a big anniversary exhibition with international artists. While waiting to be able to propose other important exhibitions like THE INFINITE and others IP to work with.*

Marianne Lévy-leblond & Stéphane Nauroy (ARTE France)

**What is the latest immersive news for ARTE?**

*Marianne Lévy-leblond – 2021 was a year, for reasons of production cycle, with few VR or video game releases for us. 2022 is going to be richer on that level. We have nevertheless recently released 4 FEET HIGH (1 METRE VINGT – awarded at SXSW 2021 in particular), in a transmedia device combining several episodes of web-series and VR film. The 360 video seems to be behind in terms of technology or usage, but 4 FEET HIGH excels in this format. Like everyone else, we're aiming for more interactive experiences. But the 360 format seems very interesting to us, for several reasons.*

*Stéphane Nauroy – The fact is that there is no real economy around 360 formats. The stores have little or no interest in them. Oculus may want to offer some for its Oculus TV category. While we have many examples of great 360 movies, where 6DOF is not suitable for all subjects.*

*Marianne Lévy-leblond – In January 2021, we also published BATTLESCAR of which we are particularly proud. Editorially, this brought us back to the issues of distributing such ambitious, multiple, interactive works and fictional worlds – like GLOOMY EYES, of course.*

**Do you have specific release strategies for your content?**

*Stéphane Nauroy – Until 2020 we had our ARTE360 app that offered our 360 line-up – and was available on all platforms (mobile, PC, headsets). We chose to stop it after a successful activity phase that allowed us to test things. Today, Youtube is at the heart of our 360 strategy. Even if there is little choice, Youtube allows us to editorialise, to broadcast quite freely. Oculus TV also interests us, even if we are less free there. With this type of platform we rather discuss interactive 6DOF projects which are at the heart of their own strategy.*

*Marianne Lévy-leblond – Our observation, after about 5 years of involvement of the whole of ARTE in virtual reality, is that our productions had had a real circulation, the recognition of professionals and the press. It made sense to position ourselves on these innovative formats. But we also had to accept a certain failure on the public side. So we decided in 2019 to focus our efforts on content that would have a chance to be better promoted. Prestige content on social, political topics etc. Or franchises familiar to the public, names of contributors already recognized. There is no exhaustive list of these criteria, but we now consider projects based on their potential to be visible. The best example of this is our Spring 2022 release, ON THE MORNING YOU WAKE (TO THE END OF THE WORLD) which is in selection at Sundance 2022. An international co-production by the creators of NOTES ON BLINDNESS: INTO DARKNESS (Archer's Mark, Atlas V) with a strong subject matter, a brilliant object in its direction and a strong statement.*

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## **Does this mean that you support projects with necessarily international ambitions?**

*Marianne Lévy-leblond – ARTE by nature is an international broadcaster, and by nature we broadcast works for a global audience – whether it is linear fiction, VR projects or video games. Furthermore, our editorial discussions are necessarily with players in a globalised industry, such as Oculus or HTC.*

*Stéphane Nauroy – For example, we can no longer geo-locate content. Platforms ask us to be available everywhere at the same time. Most downloads are in North America or Asia. There is a near-monopoly of Oculus (Meta) with the success of its Quest headset. Beyond the festivals, it is almost a must. The constraints are strong to be published on their official store. ON THE MORNING YOU WAKE could be one of the last narrative content to make it, as Oculus' interest today is video games. But the project almost doesn't meet their criteria anymore; an experience length of more than an hour, etc. For non-gaming 6DOF, this is impossible. So we have to pass on these limitations to the projects we select.*

*Marianne Lévy-leblond – But these criteria evolve very quickly, and we must also know how to anticipate and adapt. Maybe in 6 months everything will have changed...*

*Stéphane Nauroy – Recently there is the alternative offer of the App Lab, a secondary store with prototypes or experimental content, with less curation. It's not currently a place for ARTE, but we don't know how it will evolve. But I'm hopeful that there will be more freedom through it, and an economic interest in seeing it grow.*

## **What about other international platforms?**

*Stéphane Nauroy – We obviously work with everyone. Viveport, Steam... Our experiences are released there. We need to be the most widely distributed. But there's a real difference in viewing volume between them and Oculus. Steam, on the other hand, is an interesting editorial platform where we can work more precisely on our distribution and our community. With tools from the video game industry that make sense for VR (wishlist...). There is an ARTE team dedicated to this.*

*Marianne Lévy-leblond – It's a complex time for us, because we are both co-producers and/or broadcasters depending on the project. It's sometimes frustrating not to be able to control everything in terms of distribution, promotion as we do in our own ecosystem (website, player...) – even if we work closely with every platform that are often coproducers as well. We are therefore positioned in a particular place, doing everything possible to ensure that the experiences are as visible and appreciated as possible. Without being naive, because we have been working for a long time outside of our own channels on our other content (linear, video game), but for VR it is complicated today to exist without international platforms.*

*Stéphane Nauroy – Choosing to broadcast on Youtube also means increasing the visibility of certain experiences. Even for a hit like BATTLESCAR on Oculus, it's a limited audience. When you have a 360 work, on Youtube it is quite valid for the general public. Obviously, this is also an American platform, but it is more open than a VR store. They have a player that we can integrate on our pages, etc.*

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## **Do you still consider the passage in festivals as mandatory?**

*Marianne Lévy-leblond – For us the passage in festivals remains essential. However, I distinguish between cultural events with specialised VR sections, and more generalist exhibitions or museums with a VR corner. In this second case, we get closer to institutions and it is so much better. Anything that can offer visibility to our projects is great! On the other hand, the context of the pandemic has changed certain habits for festivals like Venice, and some have understood that they could have a more important role in the dissemination of works. This brings us closer to a distribution model, and we have to manage it.*

*Marianne Lévy-leblond – We are talking about publication rights before an official release, on the same platforms as us (publishers), free or paid access experiences... It's complex, because we have to protect the unpublished character of our releases in order to work on each release, the communication... In the context of the pandemic, we have especially focused on the visibility of our experiences. If everything returns to normal, we will have to discuss this in concrete terms in order to organise digital distribution as well as possible. Obviously, for certain more artisanal productions – where there is no real market – there are many possibilities that should not be held back.*

## **And the role of media and public relations?**

*Marianne Lévy-leblond – This is a legitimate concern for everyone. VR remains a technological innovation for many, not a full-fledged editorial proposition. We are still far from the video game for that. But I understand that it is complex for editorial offices, faced with content that is not very accessible to the general public.*

*Stéphane Nauroy – It remains difficult for the press to talk about an experience without re-explaining the hardware, etc. The discussion around the metaverse can contribute to accelerate the appropriation by the public of these virtual universes, and make VR more mainstream. Even for the general media. For us, on the publishing and communication side, we try to reach online communities, especially Reddit or others, to present our offer. And to take inspiration from the video game industry. All this remains to be monitored...*

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## Conclusion

XR content enables a whole new method of artistic and creative storytelling and requires a whole new production process for the creators who make it. Existing funding and distribution models are unsuited to these kinds of hybrid projects, forcing creators to draw sharp distinctions in the initial funding process, maintain artificial distinctions during the production process, and choose rigid distribution models unsuited to their work.

In between a growing number of XR creators and large interested audiences, lie funding and distribution methods that are unreliable, inappropriate, and outdated. Our research focuses on a number of possible solutions, with first-person insights and perspectives, and establishes the criteria for a successful solution.

## Building a Better Future for Independent XR

Based upon our research, we hope that governments and institutions that support arts and culture consider the special opportunities and challenges of XR content in funding schemes.

While seldom mentioned directly in the course of our research on distribution, questions of funding underlie every aspect of the creation, marketing, and reach of these types of works. The issue is so omnipresent and urgent that it will be the focus of our work for 2022.