StoryFutures /ACADEMY/

National Centre for Immersive Storytelling

FINAL REPORT
2018-2023

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CHAIR'S STATEMENT

Designed to ensure the creative industries stay ahead of the curve in a period of rapid technological change, the globally unique StoryFutures Academy closed the feedback loop between R&D and professional training, equipped the UK workforce with the skills to exploit emergent technologies, fuelled innovation and helped create a world-leading immersive sector.

Put simply, StoryFutures Academy has been exactly what the creative industries have needed to stay ahead of the curve in an incredible period of disruptive technology development and new innovation. Across the lifetime of the project we've seen the growth of immersive technologies and the rising popularity of AR and VR – moving from one-off phenomena like *Pokémon Go* to VR enabled brand extensions like Maze Theory's award-winning *Peaky Blinders VR*. We've seen these technologies integrated into linear production, with the advent of Virtual Production moving from high-end TV drama to documentaries like David Olusoga's *The Peoples' Piazza* (BBC2). And we've seen AI storytelling move from high-profile innovations, like Netflix's *Bandersnatch*, to the Charisma.AI driven Sky series *Bulletproof*. StoryFutures Academy has played a vital role in guiding innovative new technologies into the mainstream, providing targeted R&D support, training talent and de-risking innovation.

Our creative sector is all the stronger for it – and the numbers prove it: nearly 10,000 people trained, including 1,345 current screen professionals and hundreds of next-generation creatives; over 900 jobs supported and an incredible £11.5m co-investment

into innovation projects leveraged. These figures and more have been achieved with a deep commitment to equality and diversity, against the backdrop of the Covid-19 pandemic and an ensuing global down-turn in screen sector investment, when appetite and budgets for innovation projects and experiments are always hardest hit. It's an impressive achievement.

StoryFutures Academy has undoubtedly proven the value and need for this R&D-infused training programme. As Chair of the Steering Board it has been my pleasure to work with the UK's major screen sector trade bodies – Pact, Ukie, British Screen Forum, UK Screen Alliance as well as the BFI – in ensuring that the programme of work produced here has always remained relevant, impactful and agenda-setting. Collectively these trade bodies represent over 4,000 UK SMEs who are the life blood of the UK creative sector and the powerhouse of its economic growth. We hope that the seeds sewn by StoryFutures Academy enable those companies to look within their own teams, to universities and to the National Film and Television School (NFTS) for guidance, training and R&D that will help them address current and future digital disruptions. We hope that as part of the wider Audiences of the Futures and Creative Industries Clusters Programme one of the sustaining legacies will be ongoing collaborations between industry and academia to tackle the challenges of new technologies.

We need to support our creative sector in taking risks: the StoryFutures Academy programme has proven that the rewards are manifold. The entire steering board and I are incredibly proud that the collaboration between the National Film and Television School (NFTS) and Royal Holloway, University of London established through StoryFutures Academy will continue under a new guise as the CoSTAR National Lab for creative industries. That this will continue to link training with innovation via the new Doctoral Training Programme on inclusive AI with the University of Surrey to be embedded within the lab will be an important legacy of the StoryFutures Academy programme. But if we are to close this chapter on StoryFutures Academy with one final message: it is that the story has only just begun – I hope that this is merely the end of Season 1 and UKRI, DCMS, DSIT and Treasury will find a way to support a second instalment.

Bal Samra
StoryFutures Academy Chair
12th October 2023

DIRECTOR'S STATEMENT

Immersive (v): transitive. To dip or plunge into a liquid; to put overhead in water, etc.; spec to baptize by immersion.

Over the past 6 years we have plunged deep into waters of the unknown. At times, almost certainly, over our heads. And we never really just dipped.

As co-directors we remain immensely impressed with the accomplishments of the StoryFutures Academy team. At the outset of the programme, the creation of an interlinked R&D and training institution had never been achieved before. And we were part of a wider series of 'first of a kind' collaborations across the Audiences of the Futures demonstrators and the Creative Industries Clusters Programme – sprinting to keep up with a juggernaut of projects that were headed into uncharted territories. The remit was to support and develop best practice in immersive storytelling from these programmes through training initiatives that would translate R&D into professional practice – leaving a nationwide set of university courses in its slip stream to enable a talent pipeline for years to come.

At the outset of StoryFutures Academy we ambitiously pitched an engagement of over 1,000 beneficiaries, and to create and support 80 jobs; in the end we have exceeded these expectations by ten-fold. We have achieved nearly four times the financial co-investment we targeted to leverage, achieving £11.5m against an original KPI of £3.1m. We have supported nearly five times the number of productions planned (50 from an original KPI of 12) and doubled the number of skills programmes we hoped to launch (101 against a target of 49). Throughout all these achievements we have embedded diversity in our work, with 24% of participants from global majority backgrounds, over 60% identifying as female and over 40% of our activities benefitting participants and companies outside London and the South East.

This is a story we did not imagine was possible as we took the initial plunge. The complete immersion we achieved in the sector owes everything to the hard work and passion of our talented team – from the directorate through to our producers and researchers, our technicians and administrators. This alone, formidable as it is, would not have been sufficient: the success of StoryFutures Academy is equally reliant on the passion and hard work of our industry partners and collaborators. We thank all 9,842 of you!

The beneficiaries and the ongoing pipeline of talent we have established are significant legacies of the programme. And the strength of the sector is attested to by the number of jobs, companies and international awards the UK is recognised for. At our own institutions we've embedded immersive production into our curriculum at the National Film and Television School across games and virtual production in particular, and across Performing and Digital Arts, Psychology, Management and Engineering at Royal Holloway. Amongst the hundreds of other UK courses inspired by our work, we hope this will continue to support the strength of the sector for years to come.

In our new guise as the CoSTAR National R&D Lab for the Creative Industries, we will continue to champion innovation and R&D across the creative sector. We look forward to supporting the sector, and beyond, through our ongoing partnership and are pleased to be joined by the talent of University of Surrey and Abertay University at CoSTAR.

So, as we are about to dive into a new story of supporting creative industries innovation, StoryFutures Academy has been a baptism for our team in learning how to swim into the unknown. Perhaps the last 6 years was a 'dip' after all: imagine what we'll achieve now that we have learnt to swim!

Professor James Bennett
Co-Director, StoryFutures Academy

Dr Jon Wardle
Co-Director, StoryFutures Academy

SECTION 1
ACHIEVEMENTS

9,842
TOTAL BENEFICIARIES
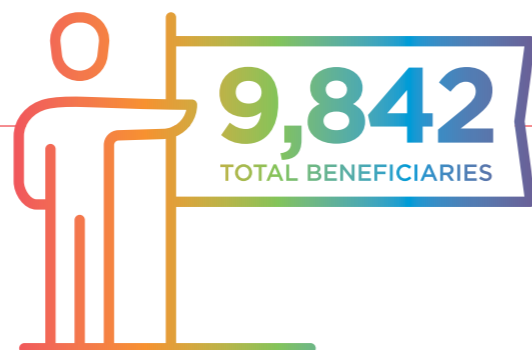
Over five years we have achieved more than double our original targets in six out of twelve KPIs (see table below), and reached an estimated 9,842 total beneficiaries of the whole programme. We achieved this through our various training and production initiatives, as well as delivery of our online resources such as our Podcast, Masterclasses and Massive Open Online Course (MOOC). These beneficiaries included 1345 Core Screen Talent and 874 Student beneficiaries.

KPI	TARGET[1]	TOTAL	ACHIEVED[2]
Core screen talent development	620 inc. 100 CICP beneficiaries	1,345 inc. 104 CICP beneficiaries	
Early Career Researcher Beneficiaries of the total core screen talent beneficiaries	30	18[3]	
New skills programmes	49	101	
Co-productions	27	50	
Co-production to reach regions	25%	54%	
Leverage	£3,100,000	£11,554,761	
New & saved jobs	155	917	
Gender diversity	50% female minimum	64% female	
Global majority pledge	20%	24%	
Industry placements	29	33 including student placements	
ECR Industry placements	10	9[3]	
Delivery of workstreams outside of London	6	14	

[1]Target includes original programme and extension phase
[2]Key: Green = Met/Exceeded Target; Light Green = Partially met – revised expectations with agreement of funder
[3]See Section 7 for further discussion on ECR Placement programme.

StoryFutures Academy (SFA) awarded a total of £1,530,500 for immersive co-productions. Work supported by StoryFutures Academy has been selected for international awards and festivals including:
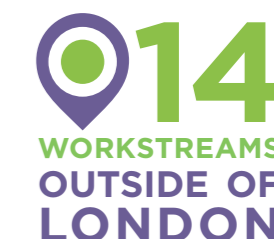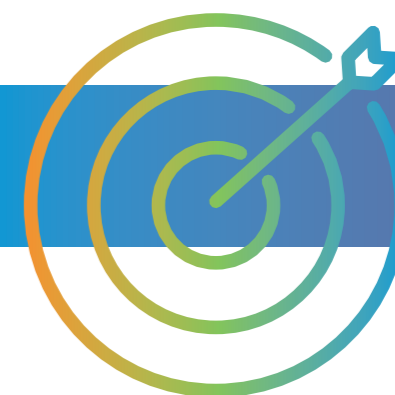
• *Laika*, by Asif Kapadia with Passion Pictures, official selection **London Film Festival;**

• *Intravene*, by DARKFIELD, official selection of **Tribeca** and **London Film Festival;**

• *Glimpse*, by Mr Kite, official selection **Venice Film Festival** and winner at **Cannes XR;**

• *Goliath*, by Anagram, winner at **Venice Biennale;**

• *(Hi)Story of a Painting*, by Fat Red Bird, winner at **SXSW;**

• *Violence*, by Shola Amoo, official selection of **Tribeca;**

• *Common Ground*, by East City Films, official selection of **Tribeca** and winner at **Sandbox Immersive Film Festival**

• *Fireworks*, by Wilder Films official selection **Tribeca;**

• *Kindred*, by Electric Skies, official selection **Venice Biennale;**

• *Peaky Blinders: The King's Ransom,* by Maze Theory, official selection **Venice Biennale;**

Meanwhile *StoryTrails: The People's Metaverse*, which was the UK's largest immersive storytelling project to date, has been recognised at a number of prestigious awards:

• Winner: Best Use of Footage on Innovative Platforms, **FOCAL Awards 2023**

• Winner: Best Use of Digital - **UK, Museums + Heritage Awards 2023**

• Honoree: Metaverse, Immersive & Virtual - Diversity, Equity & Inclusion, **Webby Awards 2023**

• Nominee: Best Immersive, **SXSW Innovation Awards 2023**

• Finalist: **Times Higher Education Research Project of the Year: Arts, Humanities and Social Sciences, 2023**

KEY PERFORMANCE INDICATORS

1345 CORE SCREEN TALENT DEVELOPMENT

18 EARLY CAREER RESEARCHER BENEFICIARIES

101 NEW SKILLS PROGRAMMES

50 CO-PRODUCTIONS

54% CO-PRODUCTION TO REACH REGIONS

33 INDUSTRY PLACEMENTS

LEVERAGE £11,554,761

917 NEW & SAVED JOBS

24% GLOBAL MAJORITY BENEFICIARIES

64% FEMALE GENDER DIVERSITY

9 ECR INDUSTRY PLACEMENTS

14 WORKSTREAMS OUTSIDE OF LONDON

SECTION 2
NATIONAL AND INTERNATIONAL REACH AND IMPACT

National

As the National Centre for Immersive Storytelling, we have worked hard to ensure that our work reaches across the UK, including production funding and training opportunities.

45% of all our beneficiaries are outside of Greater London, with 54% of co-productions sourced from the nations and regions. This fully reflects and services the needs of the UK's creative economy, with 51% of creative industries located outside of the South East (Nesta)[5].

Figure 1 demonstrates the spread of our work across the nation. Hotspots correspond with our engagement with the Creative Industries Clusters Programme, with strong activity identifiable in areas such as Cardiff, Belfast, Abertay, Bristol, York, Surrey and London serviced by Clwstr, Future Screens NI, InGAME, B+B Cluster, XR Stories and StoryFutures respectively.

Beyond this, however, Figure 1 points to strong emerging clusters of immersive production in places such as the West Midlands, Greater Manchester and Liverpool, Brighton and East Sussex.

Figure 1: Location of all programme beneficiaries

Figure 2: Academic Institutions engaged with through the Train the Trainer programme

One particularly significant aspect of our national reach is our Train the Trainer programme (see Section 7), as illustrated by Figure 2. Between 2018 and 2022, 172 university researchers and lecturers accessed funding and mentoring from StoryFutures to develop new courses across 122 disciplines spanning the full range of STEAM: from theatre to medicine, engineering to games design. The result is a national network of over 17 institutions running 62 new or modified courses that have capacity to train 2,772 students annually. More importantly, the trainers themselves will build increased capacity within their institutions, building a legacy that ensures a legacy that ensures our researchers and lecturers have the skills to train the next generation of industry leaders in immersive production well into the future.

Figure 3 shows the geographic spread of the beneficiaries of our Experimental Labs and Writers Room workstream, illustrating the importance of this format in reaching talent across the UK. Our pivot to a combination of remote and in-person labs, originally necessitated by the Covid pandemic, has greatly improved accessibility of our training and we continue to offer a range of remote and in-person labs and events throughout our programme.

Figure 3: Location of Beneficiaries of Experimental Labs and Writers Rooms

International

Immersive experiences created through StoryFutures Academy funding and programmes have reached over 21 international territories, largely through prestigious festivals such as Tribeca and SXSW in the USA, Venice Biennale in Italy, and Sandbox Immersive Festival in China.

One of our most significant programmes in the past 18 months has been the UK Canada Immersive Exchange programme (see Section 5).

With over 500 applications for the 24 places available, the appetite for international export and co-production opportunities is undeniably strong. Perhaps this is unsurprising given the Immerse UK 2019 Immersive Economy Report identified that 62.3% of immersive companies were already "exporting products, applications and experiences around the globe". With 22.3% of immersive economy companies working in media and arts, the K Canada Immersive Exchange (UCIE) programme was designed to build company capacity to exploit the opportunity of international markets.

> "It has expanded my network and knowledge as well as given me a lot to think about, including my consideration of what organizational structure I might need to establish in order to further support my growth and development in work with immersive technology."
> **UCIE programme participant**

However, as we found in running the programme, SMEs' opportunities in immersive storytelling are hampered by a lack of clear policy pathways or co-production incentives.

Whilst incentives for 'digital content' may exist, this is a vast and varied category. The form of Immersive (XR) content, for example, can vary from immersive audio soundscapes delivered over headphones to augmented reality stories accessed on location through mobile phones, to hybrid live performances delivered through virtual reality headsets. Some of this content may fit neatly into an existing vertical (such as journalism, arts and culture, film, games, advertising) but in reality, most fall somewhere in between. At its best, this content can reap the benefits in terms of support and recognition from multiple sectors, however, more often new forms of digital media do not fit neatly into these existing frameworks and suffer from a lack of reliable, sustained support as a result.

In addition, existing incentives such as Creative Tax Relief and Co-production treaties built to help foster collaboration between countries were originally created with a different form of media in mind. As such, innovative creatives often find they either cannot take full advantage of them, or indeed aren't even aware of them, as the way they are marketed and presented is still geared towards traditional content.

As the UK is a major exporter of creative content and production, this lack of a framework for immersive is a major barrier to growth – with no continuous, national initiatives to support this. Immersive content producers could stand to gain a lot from the same form of co-production incentives that enable traditional media projects, such as film and TV, to collaborate internationally. This includes the use of co-production treaties and the support that these can unlock in the form of tax credits, as well as ring fenced funding incentives.

SECTION 3
EQUALITY, DIVERSITY & INCLUSION

"I supported StoryFutures Academy because I knew they could help move the dial on immersive storytelling. They've really made a difference -not just in how stories are told but who's able to tell them. 10,000 people trained - over 60% identifying as female, almost a quarter from global majority backgrounds. It should always be this way!"
Sir Lenny Henry,
StoryFutures Academy Steering Board

From the outset, StoryFutures Academy set an ambitious EDI target in terms of inclusion of gender, ethnicity and race. Supporting regional voices and economies, as explored in the previous chapter, was but one part of that remit. Given new technologies have tended to be dominated by white males, it was particularly important that StoryFutures Academy provide a space to enable female and global majority creatives to develop a strong voice in the emerging technologies of immersive storytelling. We more than doubled our target in both cases:

GENDER DIVERSITY
50% female minimum

64%
female

GLOBAL MAJORITY PLEDGE

Target 20%

24%
achieved
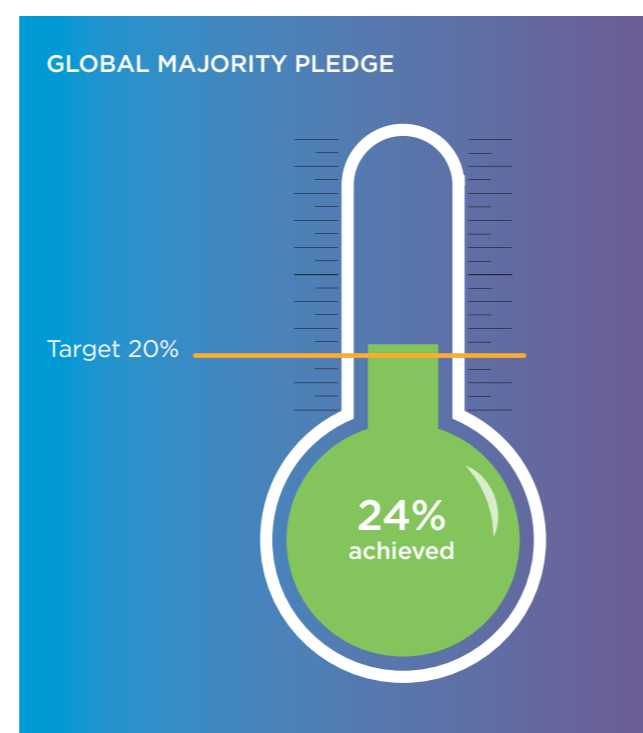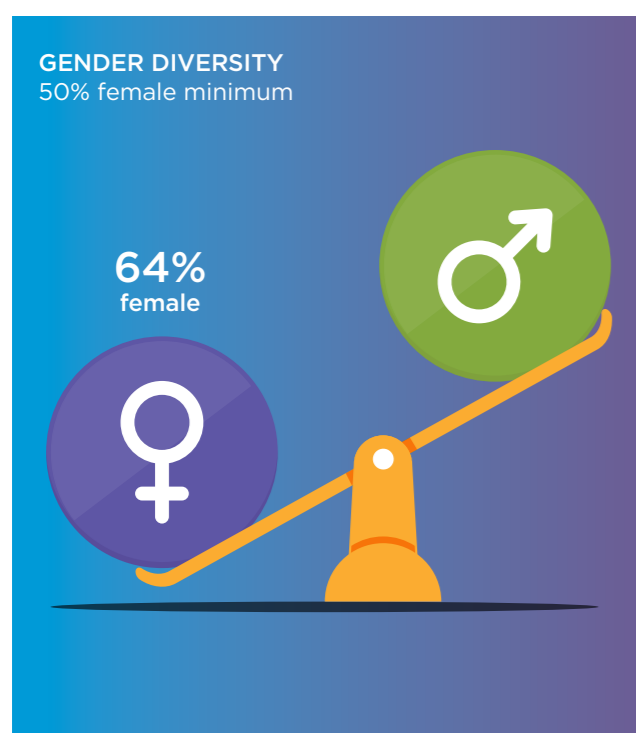
Crucial to these successes was the engagement of high-profile talent to support our work, taking part and acting as a clarion call for diverse creatives to get involved: from Sir Lenny Henry to Asif Kapadia, Georgina Campbell to Molly Dineen and David Olusoga. Established talent took part in our early programme of labs and co-productions to highlight the opportunities of immersive storytelling. With their support, StoryFutures Academy was able to operate with twin tracks to driving diverse participation through the following mechanisms:

- Open calls for our programmes that had visible representatives of the diversity we wished to promote, leading to a general high level of response from female and global majority professionals.

- Targeted calls that sought to make specific interventions in addressing imbalance in the creative sector: from our Coventry City of Culture programme working with under-represented youth groups in the city (Chapter 5), to Intro and Tier 2 training labs run with Women in Film & Television (Chapter 6), through to our Inclusive Design Accelerator (see Chapter 7) focusing on developing accessibility. We ran over 20 programmes that directly addressed EDI concerns over the 4 years of StoryFutures Academy.

Our biggest direct EDI intervention came through *StoryTrails*, a programme to support 50 diverse creatives to work in immersive storytelling and build a vision of what the 'People's Metaverse' might look like. *StoryTrails* offered a citizens' and creators' view of the Metaverse, reshaping and celebrating what we mean by public space as the digital and physical collide. It was radically inclusive – aiming to populate the digital public spaces of towns and cities with

voices and stories that are otherwise marginalised or ignored: from Bristol's Ugandan population to the Queens of the South trail in Dumfries, *StoryTrails* reanimated the meaning of public space for the Metaverse – who owns it, whose voices are heard and what encounters are possible.

"Television is an old medium with a long-established internal culture, one that developed over the decades and from the outset was exclusive rather than inclusive … The backgrounds of people such as myself, from council estates and failing comprehensive schools, are tellingly described as "non-traditional". … However, the newness of these technologies means there is the potential to ensure that those who create the metaverse are not defined as being either "traditional" or "non-traditional" … This dream of inscribing a new and better creative culture is why our StoryTrails project is placing these new technologies into the hands of 50 creatives from across the country whose backgrounds reflect the diversity of UK talent."
David Olusoga, Executive Producer, StoryTrails

StoryTrails set out to deliver end-to-end diversity and inclusion. Each aspect of the project was designed with StoryFutures' partners along the principles of inclusive innovation. A diversity and inclusion (D&I) action plan was applied to each phase of the production process from the R&D through to recruitment and training, creative execution, community and audience engagement through to legacy. Local creative networks and national disability groups, neurodiverse groups and national diversity networks in the screen-based industries were also targeted to ensure a diverse application pool with a basic level of production skills necessary to use the experience as a springboard into immersive.

Courtesy of StoryFutures / StoryTrails

Courtesy of StoryFutures / StoryTrails

"Being a part of StoryTrails was a great experience. I developed a stronger relationship with the Sheffield community and I developed my storytelling skills. It inspired me to stay in the creative industry."

Sile Sibanda, StoryTrails Creative (BJ2)

To support the regional development of diverse creatives in immersive storytelling, the assessment process was weighted towards passion for storytelling and ideas over experience. Whilst diverse characteristics were not a prerequisite for creatives on StoryTrails, the application asked them to tell us about the stories of under-represented communities they wished to tell and why. This successfully attracted applicants across a range of protected characteristics and socio-economic backgrounds with high intersectional diversity. With over 644 applications, our final cohort over-indexed on female representation, Asian, Black and minority ethnic population and disabled applicants compared to the UK population. We also over-represented working class applicants compared to the wider UK creative industries. The statistics in the table below are even more remarkable achievements when one considers that the *Tech Talent Charter Report* of 2023 showed that only 28% of tech workers are gender minorities and only 25% are from global majority backgrounds[1].

	All applicants	Appointed	% Population (2021)
Female	57%	**51%**	50.59%
Male	43%	**37%**	49%
Prefer to self-define gender identity or prefer not to say	tbc*	**12%**	No official data
Black, Asian and minority ethnic	32.3%	**36.4% Asian 12.1%, Black 7.3%, Mixed / Other 17%**	13.1% All Asian 7.5% Black 3.4% Mixed / Other 3.3%
Disabled	18%	**19.5%**	18%
Working class	15.5%	**19.5%**	30-35%

"This project has been incredible. I grew up in Lincolnshire where the population is 96% white which comes with its complications when you're a black woman. [StoryTrails] had stories about the first black football manager, the first black referee, a wedding in a pub. These stories were honest, they're vulnerable and they're funny. And I've really seen how important a project like this is. To be able to work with SFA as a black woman from a working-class background has given me opportunities to do things that I never thought would be possible."

Emma Osman, StoryTrails Creative (BJ3)

The successes of our programmes are, however, not uniform. It is notable and regrettable that we only tracked gender in terms of binaries at the outset of the programme. And whilst we improved our inclusivity over the course of the programme, enabling participants to select 'non-binary', 'other' and 'prefer not to say' options, our data here is less robust. The importance of making trans and non-binary members of the creative community feel welcome, safe and positive about their identities has only become stronger since the StoryFutures Academy project completed. It is something that we hope new programmes such as CoSTAR, XRartists and a fresh wave of Clusters will bake into their approach from the outset. We welcome the opportunity to share our learnings – both positive and negative – with the R&D and innovation sector.

SECTION 4
ON-SET TRAINING AND BOOTCAMPS

THE STATS

86 established creative industry professionals were trained through the bootcamps

29 creative professionals completed at least 10-week (minimum) professional placements putting training into action on live productions

80% of companies participating in the bootcamps & placements programme continue to offer immersive products or services as part of their business models

4 participants gained full-time employment at a host company as a result of the programme

19 creative industry production partners took part in the programme, each contributing to training and each hosting at least one (2 or 3 month-long) professional placement

18 partner companies (over 95%) **reported that the placement and training programme was highly successful for them** in one or more of these areas:
- creation of a new innovative production they otherwise could not have done
- consolidation of pertinent skills and a de-risked way of recruiting relevant talent
- winning new business

On-set training and bootcamps provide professionals with hands-on training on immersive productions to acquire experience and new skills on set. Intensive training bootcamps cover topics identified as the most critical skillsets needed for growth of the immersive (and virtual) production sector - producing, writing, sound design, game engine development, production design and technical artist skills for Virtual Production.

These bootcamps are followed by an opportunity to apply for a placement with a company working on live productions. As well as allowing established talent to enter the immersive production sector, these productions enable existing immersive specialists to take risks on different approaches to product development brought about by the knowledge transfer between sectors.

In so doing, the placement model supports a lifelong learning skills agenda, launching second (and even third) careers for participants who have found new jobs in the immersive sector, where their experience and skills are rewarded creatively and financially. It also addresses a critical skills gap identified in SFA's report, S*kills for Immersive Content Creation* (Bennett and Murphy, Jan 2020), which showed an urgent need for immersive talent to drive production innovation in media and overcome a major barrier to growth. These skills shortages are being experienced by everyone from broadcasters to SMEs and across all genres of media production, including some of the world's biggest brands.

On-set training and bootcamps then provided a strategic response to these needs by:

1. Providing intensive bootcamp to upskill established creatives from film, TV, theatre and games in the use of immersive technologies, with a focus on how to map existing skills to immersive production.

2. Focusing training on the most critical skillsets identified in the Skills Report for growth of the immersive production sector: producing skills, writing skills, sound design skills, game engine skills, production design skills; and technical artist skills for Virtual Production.

3. Linking hard, technical skills with soft, communication and planning skills: providing trainees a set of languages to help translate their skills and approaches to the immersive sector whilst embedding an understanding of the budget, schedule and legal considerations of immersive production.

4. Building the programme in collaboration with creative industry partners to ensure skills needs were being addressed within a production context, and that training led to opportunities for professional placements on live productions so creatives could 'train on set,' putting their new skills into practice.

"The talent supply chain will not change and the industry will not progress unless initiatives like StoryFutures Academy are adopted. Enabling skilled people from the traditional TV, film, games and theatre industries to have access to immersive companies and vice versa leads to accelerated learning and development on both sides, plus helps to further cement the UK's position as a leader in immersive content creation. This cross-sector approach is not only innovative but highly valuable."
Sol Rogers, Global Director of Innovation,
Charisma Entertainment MAGNOPUS

PARTICIPANT PROFILE | RIANNA DEARDEN

Rianna is an award-winning Senior Narrative Designer and Lead at Charisma Entertainment where she works across a range of projects from video game adaptations such as John Wyndham's *The Kraken Wakes*, to an interactive *Puss In Boots*. She came to StoryFutures with a background in theatre as a performer, writer and producer and as Artistic Director of theatre company, Lost Watch.

In 2019 Rianna was selected through an Open Call for a StoryFutures Academy immersive writing skills bootcamp, after which she won a placement at Charisma.AI (To Play For) to help establish a platform and process for writing short stories using AI. Within a year, Rianna became a full-time employee, led writing teams on key development projects and is now Narrative Lead at Charisma Entertainment.

Rianna has helped Charisma win a range of awards, including a Digital Catapult award for 'Responsible and ethical tech pioneer' on *The Kraken Wakes*. Rianna is now an industry leader, a Limit Break Mentee and Mentor for women in the games industry.

❝As writers, we should always be looking for new ways to draw audiences/players into a new world, introduce them to characters, take them on a journey. Learning skills that enable you to do this in a brand-new way, is emboldening and inspiring.❞
Rianna Dearden, Narrative Lead, Charisma Entertainment MAGNOPUS

❝This could not have been more perfect for us. It was an invaluable test bed. It enabled us to de-risk the development of the workflow. The whole process was utterly invaluable and so collaborative - we learned how to write in a writer's room way, which feels like the only way this can work. As a small business, the monetary value was huge, we have found 2 amazing writers. So it just keeps giving.❞
Guy Gadney, CEO Charisma Entertainment

PARTICIPANT PROFILE | STEVE SHANNON

Steve Shannon is a Creative Director with over 15 years' experience of content creation. He has worked with many notable brands and also at the cutting edge of television, creating content across many genres from music and the arts, to documentary and children's. Steve has worked at Sky Arts, MTV, Nickelodeon and Warner Brothers Discovery.

Steve took part in the SFA Bootcamp for Producers and Directors, and secured a placement with REWIND on a ground-breaking project for the BBC. He brought his new (and old) creative skills to the world-famous brand, *Top Gear*, for its first ever VR experience with *Buckle Up!* putting audiences in the driving seat of their stunt car via 360 filming.

❝❝I've never been on a shoot that mixes 1st person and 3rd person perspectives, and in 360, so pulling these elements together with 14 different cameras and a huge team was really interesting. As was the responsibility of capturing a car flying off a ramp at 60 miles an hour!❞❞
Steve Shannon, Creative Director

Meanwhile, the REWIND team also learnt from Steve's extensive knowledge of live filming, particularly the importance of detailed pre-filming preparation. Overall the experience was hugely successful, for BBC, for REWIND and for Steve's career as he gained invaluable insight into VR workflows and technologies and became the go-to for multi-camera 360 directing. The placement fulfilled a crucial production role, supported over 50 jobs on set, and enabled invaluable knowledge exchange for the REWIND and BBC teams.

❝❝It was something we've never done before. The results, as you will see, are smashing!❞❞
Duncan Gray, Commercial Director, Top Gear

Many key car brands subsequently started integrating more gaming elements and mixed reality driving experiences into their customer offerings.

Courtesy of BBC Studios

PARTICIPANT PROFILE | RYAN GARRY

"Courtesy of Potion Pictures / BBC Studios Strictly Come Dancing

Ryan Garry is an Unreal developer, Motion Capture specialist and 3D Technical Artist with his own company, Unlimited Studios. He honed his game engine and technical skills through a StoryFutures placement and has since worked on creating production pipelines for Pinewood, metahumans for Momentum Worldwide and world accurate landscapes.

BBC *Strictly Come Dancing* was another high profile brand keen to use immersive technologies to innovate creatively. This was partly in response to the pandemic and the challenges of large studio teams working on a live show with social distancing requirements, and partly the need to attract new and younger audiences. Visual design company, Potion Pictures, were experimenting with virtual sets using Augmented Reality (AR) which reduced the need for rapid labour-intensive set changes between dances. But there was a major skills crisis: They had just one skilled digital artist who could deliver to the brief and were desperate to expand their team.

❝❝For tech freelancers, working in a game engine is relatively similar to offline workflows (in Maya or Blender) – it's just you see the results of your work a lot quicker. A lot of existing software packages are moving towards real-time previews which makes transitioning to a pure games engine much easier. Being able to work on a TV workflow, especially on a large-scale project as Strictly was invaluable in growing my own skillset and business.❞❞
Ryan Garry

Potion Pictures partnered with StoryFutures Academy on a "Toolbox for creatives" bootcamp aimed at equipping creatives with key technical and design skills (including understanding how to use game engines in the creation of digital content). Ryan Garry, who had previous experience with motion capture technology and was keen to extend his VR and AR production skills, went on to secure the placement opportunity. A steep learning curve at Potion Pictures saw him tasked with creating AR sets for the most watched Saturday night show in the country!

An estimated 120 or more creative team members and crew learnt new skills as a result of the knowledge exchange placement. Ryan Garry went on to become a senior technical artist and Unreal specialist and is now a Creative Technologist leading projects for major clients, most recently training people in the creation of metahumans.

❝❝Ryan really brought creative flair with his virtual set ideas which gave the show a new dynamic feel and definitely something exciting to talk about. And for me, so much learning too as I had to work out how to direct [without] moving cameras through the AR and how to guide the dancers and choreographers to work around it.❞❞
Nikki Parsons,
Director of Strictly Come Dancing

SECTION 5
COLLABORATIVE CO-PRODUCTIONS

THE STATS[2]

50 co-productions delivered

549 jobs created or saved

£1,530,500 value of co-productions funding

£3,945,075 value of leverage

54% of productions delivered regionally

Co-productions represent a vital intervention in supporting innovation, promoting R&D collaboration and de-risking investment in training to enable companies to exploit new markets made possible through immersive technologies. These projects provide a mixture of lab-based and hands-on learning for new and intermediate individuals and companies in the immersive landscape, launching careers, business plans and new products.

Models have been developed to support companies and talent at different levels throughout the sector, from small scale "Kickstart" prototypes to challenge-led "StoryLabs", and talent-led large scale co-productions. These have enabled us to work with leading companies and talent to tackle scalable challenges in developing immersive work for audiences, including with BBC3 and Oscar-winning Director Asif Kapadia.

All our co-production work also serves as a valuable learning resource for future students who are interested in entering the immersive sector, with recipients contracted to give 'time back' to future cohorts of StoryFutures Academy to host seminars on their work, teach classes at NFTS or Royal Holloway or deliver masterclasses for wider knowledge sharing. This virtuous circle enables innovation and risk taking, developing lifelong-learners with a mission to share their knowledge with the next generation and build a talent pipeline to make the UK a world leader in immersive storytelling.

Highlights:

- *Positive Realities* was a co-production and training initiative following our StoryLab model, with Coventry City of Culture Trust and the West Midlands' Combined Authority's Create Central as challenge-setters (see Case Study).

- *Laika* was a collaboration between Director Asif Kapadia and Passion Pictures to create the Oscar-winning Director's first VR experience, in collaboration with the BFI London Film Festival and co-funded by SFA (see Case Study).

- *StoryTrails* was a large-scale immersive demonstrator programme which toured 15 locations across the UK and engaged over 1.4 million people, supported by SFA match funding (see Case Study).

- *The People's Piazza* was the UK's first feature-length documentary to use virtual production, commissioned by the BBC, BFI and StoryFutures Academy and made by Uplands as part of the *StoryTrails* project (see Case Study).

- **Kickstart Funding** was designed to support early-stage project research and development and the creation of immersive proof of concepts (up to £10,000 per project). Projects included *Violence* by Director Shola Amoo, and the original VR prototype for *Fireworks*, a drama by Oscar-winning VFX specialist Paul Franklin (see Section 5).

- **Production Booster Funding** supported advanced, larger-scale co-production projects, which offered significant learning opportunities that were fed back into the StoryFutures Academy programme. Recipients included Bristol-based SME Anagram and their project *Goliath* which explores psychosis and went on to win 'Best VR Experience' at Venice Biennale 2020, and London-based SME Mr Kite who created animated VR feature, *Glimpse*, which won 'Best VR Interactive Experience' at Cannes XR 2022.

- **Oddly Satisfying** was a StoryLab challenge set in collaboration with BBC3 to produce "wind-down" immersive content for 18-25 year olds, translating the ability of TV producers and storytellers to produce immersive content. Six production companies took part in the training, with Little Dot Studios ultimately going on to successfully pitch and create VR experience #OddlySatisfying. The experience was transformative for both the companies involved (see also Section 5) as well as for our collaborators at the BBC.

"If you want to understand immersive technology and you work in the creative sector, StoryFutures Academy is clearly the place that you should be going to. They don't just have the expertise, they have the academic rigour and the connections to put people like me in contact with technologies and experiences that we might not ordinarily come across."
Ricky Cooper, BBC TV Commissioning Executive

- **Bridge to Industry** is an NFTS initiative supported by SFA to help emerging screen creatives develop their technical and storytelling skills in immersive technologies. The programme has commissioned three productions: animated experiences *Midnight Story* and *Seeds of Life*, which both went on to have international festival exhibitions, and the immersive comedy-horror game *Tea is Served*, which was showcased at EGX 2023.

- **BFI Short Form Animation Fund - Immersive Strand** was a collaboration between SFA and the British Film Institute (BFI) to expand core funding programmes to enable support of immersive projects by the nation's film institute. The two immersive projects selected for funding were *Beachcomber* from Second Home Studios, Birmingham, and *There Exists* from Studio ANRK, London. Production on these projects completed in Summer 2023.

"The new partnership with StoryFutures Academy this year has been incredibly productive, allowing us to expand the scope of the fund and back two immersive animated shorts from filmmakers who are pushing the boundaries of the form."
Kristin Irving, Senior Production & Development Executive at the BFI Film Fund

CASE STUDY | *STORYTRAILS*

Commissioned by Unboxed, a DCMS-funded festival of creativity and innovation, the *StoryTrails* demonstrator programme toured 15 UK library locations and engaged over 1.4 million people. Led by SFA in partnership with the BFI, BBC, Nexus Studios, Niantic, ISO Design, Produce UK and The Reading Agency, it was designed as an R&D and training programme that sought to shape how the Metaverse might be created and experienced through the lens of 'digital public space'. By placing 'history where it happened', the project sought to use immersive storytelling approaches to create a dialogue between past, present and future British citizens so as to stimulate a conversation about who we are and where we are going.

It trained 50 diverse creative practitioners to develop a manifold talent base for immersive storytelling that could represent the full diversity of the UK. It educated over 900 librarians in the use of immersive technologies, and this national network has run over 120 immersive storytelling workshops since the completion of the *StoryTrails* summer 2022 tour.

StoryTrails was awarded a FOCAL award in 2023 for innovation with film and TV archives, using machine learning and AI tools to rotoscope and spatialise 2D assets from the BFI and BBC. It further innovated through the creative use of 3D lidar scanning, generating thousands of location scans that became the scenes for hundreds of 3D story map dioramas, a process captured by the BBC News Technology programme *Click*.

StoryTrails was cited as an innovative project of note in the Scottish Parliament and in November 2022, StoryFutures was invited to give evidence at Baroness Sanderson's DCMS review of public libraries.

"*StoryTrails* has had a profound effect on us. Post Covid, I was struggling to see the future of library services. There's always been a core purpose but recently it's been difficult to see what that is. This is the role of libraries now. [These are] really important things that we can improve the world with."
Blackpool Librarian

CASE STUDY | *POSITIVE REALITIES*

This co-production and training initiative was developed with Coventry City of Culture Trust and the West Midlands' Combined Authority's Create Central to support the region's creative industries. The project explored the potential for immersive storytelling to address the emotional wellbeing of local youth cultures at risk of disenfranchisement from education and employment and offered upskilling opportunities for regional creative businesses. Six regional SMEs new to immersive production attended a two-day training workshop before working with Coventry's Positive Youth Foundation to develop a pilot immersive experience for audiences at CVX Festival. Following a series of workshops and a rigorous selection process, Birmingham based collective JellyBob were awarded a grant to develop a virtual performance experience.

❝Creating Augmented Reality was a very different project for us, but working with the young people in Coventry it soon became clear that AR is still a very new and exciting way of exhibiting content in places where it's not always possible to take performers. Having the ability to view 'live-action' performances wherever you are is pure magic.❞
Nigel Harris,
Exec Producer Urban Jungle AR Expereince

Mentored by SFA and AR specialists Arcade, Urban Jungle was a smartphone AR experience which hosted a series of virtual performances from up-and-coming regional talent. The experience was promoted by Coventry City of Culture 2021, and it was received positively by audiences. Research conducted by StoryFutures about the co-creation process found that of the twenty three young people involved in the project, 96% had enjoyed the co-creation process and 82% believed it had enabled them to influence decisions in their neighbourhood. Audiences said that the experience had made them curious about finding out more about the different Coventry communities and they "enjoyed the experience strongly."

❝Urban Jungle was a great addition to CVX Festival and it's great to see the winning companies go on to forge new collaborations and networks in Coventry and beyond in relation to their immersive project and work.❞
Chenine Bhathena,
Creative Director Coventry 2021

CASE STUDY | *LAIKA*

StoryFutures Academy worked with Oscar and BAFTA-winning film-maker Asif Kapadia to produce *Laika*, a Virtual Reality animation giving audiences the chance to be immersed in the moving and tragic real-life story of the first dog in space. The 15-minute short VR experience featured the voices of Sophie Okonedo and Tobias Menzies and was created as a collaboration between Passion Pictures and SheepThief, funded by SFA, BFI, Film 4 and supported by Epic Games. It received its premiere at the BFI London Film Festival in 2021 as part of LFF Expanded.

❝From the moment I first read Nick Abadzis' fantastic graphic novel *Laika* I have wanted to find a way to adapt it and bring it to the screen. I have gone on a huge journey myself during the process of making this film. I initially struggled with VR and through this project I've learnt more about the process and its potential and I'm now genuinely a convert. Above all, I'm excited by how VR can potentially transport the viewer to a different time and place and provide a unique experience to every other visual medium.❞
Asif Kapadia, Director of *Laika*

Breaking new ground in distribution, *Laika* was initially presented as part of LFF Expanded, then toured to UK cinemas in the spring of 2022 with post-screening Q&As hosted by Asif Kapadia. Showcasing distribution capacity and providing insights into new VR markets, this project helped pave the way for further distribution initiatives including the StoryFutures Xperience programme, which launched in Autumn 2023.

Xperience has trained 5 regional BFI cinemas and equipped 18 libraries with VR headsets and over 20 VR titles designed for collective viewing, bringing VR experiences to audiences at 30 events so far. As well as increasing audience access to immersive storytelling, it is providing a wider audience for prototypes and R&D work emerging from Creative Industries Clusters Programme, Audiences of the Future and other UKRI investments.

❝Thought the VR experience was amazing. Having never done it before, I found the whole thing very exciting and it has convinced me that VR really does have a place in storytelling (I was sceptical before).❞
(Genderqueer audience member, age 19)

Following the completion of *Laika*, Asif Kapadia has continued to work with StoryFutures to explore opportunities with other forms of technology, such as virtual production, which has gone on to inform his work in film. At Passion, this project proved a useful test case for building an Unreal pipeline for animation and informed R&D planning and process discussions for future projects.

CASE STUDY | *THE PEOPLE'S PIAZZA*

The People's Piazza is a 90-minute feature film commissioned by the BBC, BFI and StoryFutures Academy and made by Uplands as part of the *StoryTrails* project to explore immersive storytelling to connect history, place and identity. Inspired by George Trevelyan's famous quote, the film explores the history of Covent Garden as the UK's pre-eminent public place: a noisy and bustling intersection of stories and lives from across the country.

> **The poetry of history lies in the quasi-miraculous fact that once, on this earth, once, on this familiar spot of ground, walked other men and women, as actual as we are today, thinking their own thoughts, swayed by their own passions, but now all gone, one generation vanishing into another, gone as utterly as we ourselves shall shortly be gone, like ghosts at cockcrow.**
> G M Trevelyan

Continuing *StoryTrails'* innovative use of immersive technologies to explore 'history where it happened', StoryFutures Academy commissioned a talent-led Virtual Production (VP) sequence for *The People's Piazza* to enable presenter and *StoryTrails* executive producer David Olusoga to step back in time and inhabit the piazza across different moments in its history. The R&D challenge was to develop an artistic, rather than photorealistic, rendering of the piazza, which involved a combination of R&D in script writing, performance, creative and technical production, as follows:

Scriptwriting

At the heart of *The People's Piazza* is a spatial and historical analysis which draws on David Olusoga's expertise of using a domestic space to reveal change and continuity over time, enabling contemporary audiences to understand the lives of previous generations.

The People's Piazza is centred around a much larger public space, exploring how the space changed, shrinking and expanding in response to fashion, history, and economic growth and decline. We worked with Director Chris Durlacher to consider how script and technology could interact to render this public space in a stylised form that could be inhabited by both performer and audience alike.

Performance

In *The Peoples' Piazza*, David Olusoga and two historians walk through several different historic moments in Covent Garden, creating a feeling of being a part of this bustling world. Within immersive performance contexts a great deal of focus has been on the 'user' or audience - in VR for example, or as a participant in the works of Punchdrunk. The immersive experience is often thought of as feeling 'more fully with the body of another' (Jarvis, 2019). Having an embodied response to a non-human character in fantastical surroundings increases an actor's range of experience. Virtual Production can shift theories of performing in immersive contexts away from the focus on actor relationships or VR participatory strategies, to new ways of engaging with scenarios and visual elements. Depending on the type of production—documentary, science fiction, or realistic drama—actors will need to develop and hone skills to best tell these stories.

Creative Production

Through the production process we addressed three important creative production training, research and development needs:

- How to transition key well-established creatives from traditional methods of documentary to new VP driven approaches in a short time frame

- Budgeting and scheduling for advanced VP led production

- Briefing commissioning and managing the Virtual Art Department (VAD)

These challenges spoke to sector-wide gaps in how existing skills are transitioned to virtual production, particularly moving from traditional linear production processes and segregated departments to a more holistic and 'all at once' model.

We built a bespoke training programme for Uplands key team members, including two executive producers, a line producer and director. The programme ran from an introductory lab at Epic Games covering budget, schedule and stage operation, to a deep dive into technology and cinematography. From the production of the sequence, a valuable and credible use-case for VP-enhanced documentary emerged that now forms the basis of training materials for future StoryFutures Academy participants.

SECTION 6
EXPERIMENTAL LABS & WRITERS ROOMS

The Experimental Labs & Writers Room workstream focussed on offering a set of structured skills and talent development workshops that provided a crucial point of entry for UK creatives to engage with the potential of immersive storytelling. These upskilling initiatives acted as a gateway to not only the landscape of AR and VR but also to the opportunities available through the wider StoryFutures Academy workstreams.

We embraced a hybrid remote and in-person model originally developed during the Covid-19 pandemic, to deliver high reach and develop deeper engagements and longer learning journeys beginning with Experimental Labs and Writers Rooms. In some cases, we combined workstreams, such as linking a programme of Experimental Labs with a Co-production opportunity, to make longform accelerator programmes such as the UK-Canada Immersive Exchange (see Section 6). We also worked with UK SME To Play For to link a Writers Room with a placement opportunity to offer practical production experience for writers (see profile on Rianna Dearden).

Labs were delivered in a range of formats, including one day in-person or remote Introductory Labs for those new to immersive, and advanced programmes of higher-level, multi-day training to develop skills in focused areas such as game engines, spatial audio and image capture technology.

As the programme developed, we also piloted new models to deliver training, including the StoryFutures Academy Podcast developed as a response to the Covid-19 pandemic, as well as merging workstreams to deliver a unique virtual production training package around the short film Fireworks. We also developed a six-week Massive Open Online Course (MOOC) on immersive storytelling.

THE STATS

79 Labs delivered

1189 industry professionals trained

2,000+ views of our online masterclasses, featuring ILMxLab's Mohen Leo and Vicki Dobbs Beck, RSC's Sarah Ellis, Director Asif Kapadia, and Lord David Puttnam

INITIAL SURVEY NUMBERS (across standard non-vp intro labs)

13% Convinced

64% Enthusiastic

21% Unsure

2% Sceptical

EXIT SURVEY NUMBERS (across standard non-vp intro labs)

28% Convinced

66% Enthusiastic

5% Unsure

1% Sceptical
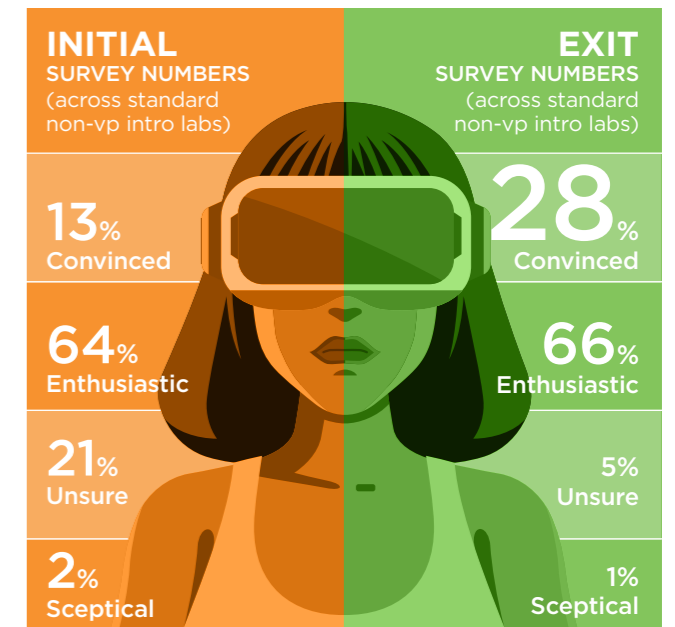
Experimental Labs

"The interactive sessions were excellent and the break-out rooms worked really well, with someone available to answer questions in-depth to smaller groups." Sucharita Ghosh-Stephenson, Director/Producer - LiDAR and Volumetric Capture for Immersive Storytelling

"I love the hands-on approach of demystifying the tools and the general attitude of everyone talking - there were plenty of opportunities for discovering new ways of doing things, rather than obstacles and problems." Minttu Mantynen, Image Capture Technology Lab

While these labs were initially focussed purely on immersive storytelling in response to industry demand, in 2020 we broadened our remit to include virtual production training which proved extremely popular. Our Experimental Lab expertise was also often combined with other workstreams to create longer form accelerator programmes, including VP Futures and the Inclusive Design Accelerator programme (see section 6).

Experimental Labs proved to be an important first step on the journey into immersive storytelling for many participants, several of whom went on to do a variety of related activities, from creating new immersive experiences and products to finding new job opportunities.

Onward journey highlights:

- **Shola Amoo**, a writer and director for Film and TV, attended one of our first Introductory Labs and went on to develop an immersive project, *Violence*, alongside producer Nell Whitley. Shola secured a StoryFutures Academy Kickstart grant and premiered *Violence* at the Tribeca Film Festival as part of 2020 Cannes XR Virtual.

"I attended a StoryFutures Academy's Intro Lab and that was very important for me, providing my first VR training experience."
Shola Amoo, Director

- **Ed Tracy**, Director of Too Tall Productions, attended a lab delivered as part of the BBC3 StoryLab challenge (see section 4). During the training Too Tall TV were introduced to the benefits of working with games engines. Since then, the company has switched most of their animation work to Unreal.

"For the past three years I've worked exclusively in Unreal Engine producing 3D animation for TV, VR applications, educational, and original content."
Ed Tracy, Director Too Tall Productions Ltd

- **Robyn Winfield-Smith**, a stage and screen director who attended a Virtual Production Introductory Lab, went on to take part in our VP Futures programme and subsequently completed the NFTS Certificate in Virtual Production. She has gone on to develop virtual production projects through her company Liminal Stage Productions, as well as recently signing up to develop new projects with Hat Trick Productions.

"My SFA training gave me the creative and technical confidence to pitch ambitious innovative projects to organisations such as the Royal Shakespeare Company – resulting in a seed commission. It has also lifted my profile as an artist, resulting in my speaking regularly at conferences and other industry events ...and in my joining leading independent TV company Hat Trick Productions as part of a new development team."
Robyn Winfield-Smith, Director

PARTICIPANT PROFILE | JOE AHEARNE

Joe Ahearne is an accomplished television writer and director, best known for his work on BAFTA Award-winning series such as *Doctor Who* and *The Replacements* and a myriad of acclaimed TV programmes on major broadcast channels such as SyFy, Discovery, Fox and Starz. Joe took part in a StoryFutures Academy Immersive Experimental Lab in 2019.

"I wanted to learn how storytelling worked in VR with a particular interest in first-person narratives. The lab was very informative, useful and inspirational. It was a strong motivator for me to find out more."

Following the lab, Joe went on to collaborate with award-winning immersive content-makers Factory 42, writing the script for 'Unearthed' which was created in conjunction with Meta Immersive Learning.

"My key takeaway from the experience was that VR is a uniquely interactive medium for practitioners as well as consumers, quite distinct from film and TV and a storytelling frontier in which the rules and challenges of narrative and collaborative practice are constantly being discovered and refined in exciting ways."

Unearthed is part of the StoryFutures Xperience venues programme in UK cinemas and libraries, is now available via the Oculus store; previews of the multi-story adventure were also showcased at SXSW Film Festival as part of their XR Experience showcase.

The StoryFutures Academy Podcast

During the Covid-19 pandemic, much of the Experimental Lab activity pivoted online and it was necessary to think about alternative formats that might be appropriate for delivering skills training that were native to online distribution. To this end, StoryFutures Academy developed an 8-part podcast series, hosted by immersive director Shehani Fernando, which offered listeners insights into the making of VR and AR productions. With the help of some of the biggest names in the industry, including award-winning artist Karen Palmer, Nexus Studios' Creative Director Kim-Leigh Pontin (now at Meta), and CEO of Dream Reality Interactive Dave Ranyard, the podcast explores practical tips, case studies and the challenges that make immersive such a really exciting area to work in. It has been downloaded over 4,900 times.

Fireworks: On-set Virtual Production Training

We began piloting remote introductory Virtual Production Labs in Autumn 2020 and it quickly became clear there was significant industry appetite for this area of training. To expand our VP training further, in January 2021 we partnered with Wilder Films who were producing a short film, *Fireworks*, directed by double Academy Award winner Paul Franklin, produced by BAFTA winner Annalise Davis and written by acclaimed screenwriter Steven Lally.

Fireworks stars Charlotte Riley, Denise Gough, Ivanno Jeremiah, Sophie Wu, Hammed Animashaun, Raghad Chaar and Elysse Adil. Told in real-time in the moments before a potential strike on a Tripoli target, the film uses ground-breaking Virtual Production techniques to tell its story. The film is a Wilder Films production, in collaboration with Dimension, DNEG, Epic Mega Grants, Lipsync, and StoryFutures Academy.

Paul Franklin had attended one of SFA's original Experimental Labs and gone on to receive an SFA 'Kickstart' grant to develop *Fireworks* as a VR concept, before pivoting the project into a short film using VP.

"StoryFutures brings people from my world of filmmaking into this new emerging world. They really act as a bridge, helping to educate people in the filmmaking world about how Virtual Production technology can actually work."
Paul Franklin, BAFTA & Oscar winner, Director & VP Consultant, DNEG

We partnered with the production team to create a set of invaluable training opportunities around the live production:

- **43 participants attended on-set training workshops** with director Paul Franklin and key members of the crew from the VP team, from Writing to Production Design. Industry representatives from Sky, BBC Studios, New Pictures and Left Bank Pictures, took part as well as 15 HEI educators from disciplines including games, producing and cinematography.

- **3 student placements** in the production, assistant directing and camera departments were facilitated, **as well as 2 professional placements** in Production Management and Production Co-ordination.

- **A five-part behind-the-scenes series was created** to share insights from the shoot with the wider industry.

- **A World Premiere and Masterclass** with the cast and crew was hosted by SFA in London, in March 2022.

- **A number of subsequent 'Hands on Skills Labs'** went on to feature some of the team behind *Fireworks*, including Dimension's CTO Callum MacMillan and Head of Real-time and VP Ed Thomas.

Through our partnership with this project and a team who were embracing exciting new production technologies to tell their story, we were able to build multiple training opportunities based around one production, which appealed to people at different levels of the industry as well as educators in the sector. In many ways, the *Fireworks* project brought together the best of StoryFutures Academy workstreams, from hands-on labs to co-production, placement opportunities and online learning resources. *Fireworks* itself went on to be selected for a premiere at Tribeca2022.

Massive Online Open Course: FutureLearn

In April 2021, we launched a Massive Open Online Course (MOOC) on the FutureLearn platform introducing learners to immersive production. "How to Make and Sell Your First Immersive Experience" is a six-week course exploring all areas of immersive production – AR, VR and MR.

The course introduces immersive storytelling techniques and the technology used to create immersive experiences, including 360 filmmaking, game engine technology, immersive audio, 3D object capture and AR creation. In the final week of the course, students learn how to market their immersive work, understanding how this differs from traditional media.

The course was hosted by immersive industry experts and academics and included recorded lectures, hands-on activities and diverse learning suggestions to allow for varying degrees of technical knowledge. It also included industry examples and interviews with experts in the fields covered – an area that was favourably highlighted by learners in reviews.

In total the course had 439 activated enrolments internationally and received 86% positive feedback. Of the total enrolments, 45% were from the UK, 51% were female, with approximately an even split from self-employed and full-time working backgrounds.

> "It led me to create new ideas and connect to companies and people I otherwise would not."
> Course participant

> "Thank you for making such awesome content available! Experts sharing their industry knowledge is something that is unparalleled."
> Course participant

Writers Rooms

STATS BOX:

12 Writers Rooms delivered

145 industry professionals trained

53% female and 23% global majority participants

Putting writers at the heart of immersive storytelling and encouraging them to rethink the place and possibility of narrative in Virtual and Augmented Reality, was at the core of StoryFutures Academy Writers Rooms. We worked with writers from a vast range of backgrounds: from songwriters to graphic artists, from radio dramatists to comedians as well as encouraging established screen industries professionals to create immersive content.

Our approach to immersive technologies and production treated the story-writer as a problem-solver who can shape the narrative in response to obstacles or difficulties - just as a sculptor will use the grain of the wood to shape their creation. Writers who respond to the specifics of the medium develop the creative and technological potential of immersive as they discover what genres work best and find the optimum relationship amongst storyteller, technology and audience. They also help technologists and producers find practical solutions to obstacles inherent in an emergent technology: for example, by finding ways to transform limitations in rendering speed into a dramatic situation or character conflict within the narrative.

The writers we introduce to the medium help expand understanding of the form by finding solutions to the new problems that these technologies bring. Better storytelling improves product quality and reach, so this has significant impact economically and has major benefits in transforming national understanding as immersive technologies become the medium of choice to bring health, science and culture to new audiences.

Work developed by writers and makers who have passed through StoryFutures Academy Writers Labs has been shown at SXSW, the Venice Biennale and at cinemas throughout the UK.

> "The workshop atmosphere created felt really collaborative, friendly and easy to ask questions. Lots of food for thought and lively discussion."
> Binaural Audio WR 22

> "I had already started to do some reading and thinking in this area, but I feel the last couple of days have really widened my perspective in terms of what's possible, and also how willing games studios are to collaborate with writers from different disciplines. I'm really excited by the possibility of constructing narratives from multiple perspectives or POVs, as well as the potential offered by 'storifying' a visual environment and physical actions. Exciting!"
> Immersive Game Lab WR

Writers room highlights:

- **Writing for AI**, in collaboration with UK SME To Play For, attracted over 100 applicants and provided three writers with professional placements writing for the Charisma AI platform. One new product pitched at the Writers Room went into production as *Football Talent Tycoon* and Rianna Dearden, a theatre-maker recruited via the Writers Lab, is now Lead Writer with Charisma AI (see Profile: Rianna Dearden, Section 3).

- *Peaky Blinders* **VR**, in collaboration with UK SME Maze Theory, helped explore immersive writing for a new VR game based on TV show *Peaky Blinders*, and resulted in TV writer Kerry Kolbe completing a placement on the project. Following the experience, Maze Theory entirely re-thought their narrative design process and decided to use a Writers Room model to create content employing a number of writers. *Peaky Blinders The Kings Ransom* was released in 2022 to critical acclaim and was selected for the Venice Immersive section of the Venice Biennale and nominated for the AIXR VR and TIGA Games Industry awards.

> "*Peaky Blinders The Kings Ransom* captured the *Peaky Blinders* tone perfectly". Metro said that it was "one of the best things on the Meta Quest 2 - *Radio Times.*"

- **Immersive Theatre**, delivered with SFA partner Punchdrunk, attracted 50 applications and kickstarted the early development of VR project *This is Your Country Too* developed by Avin Shah, which went on to receive production funding from Arts Council England and tour the country as part of StoryFutures Xperience distribution partnership with the BFI (see case Study: Avin Shah).

- **Creative XR Storytelling Strand**, in collaboration with Digital Catapult and Arts Council England, supported 20 projects on the Creative XR accelerator programme, with five productions focussing on developing repeatable models and formats in VR and AR, drawing on the established business models of formats and returning narrative

arcs from TV and film. One project selected for this strand *(Hi)Story of a Painting* by Gaëlle Mourre and Quentin Darras, went on to receive further funding to help create an additional 4-episode series. The second episode of *(Hi)Story of a Painting: The Light in the Shadow* won the SXSW 2022 Jury Special Recognition for Immersive Storytelling and was described as "arguably one of the most immersive and impressive experiences you can see in a headset today" (Jamie Feltham, UploadVR).

- **Life After Lockdown** offered an opportunity for established talent to develop immersive experiences using binaural audio. The cohort included actors Colin Morgan and BAFTA winner Georgina Campbell, word and graphic artist Inua Ellams, Booker Prize shortlisted author Nadifa Mohamed Later, television comedian Jayde Adams and musicians Rae Morris and Ben Garrett (known by their stage name Fryars).

> "I can't wait to incorporate it into my work. A really useful skill, whilst the live performance world deliberates how we make audiences feel connected with social distancing measures in place."
> Jayde Adams

- **Immersive Game Lab** in collaboration with Creative Cluster InGAME explored writing for immersive games, with three writers subsequently being invited to develop project concepts with Scottish games companies. The Maze, developed with Biome Collective, went on to showcase at Develop and the Beyond Conference.

- **Imperial War Museum** Writers Room supported five writers to develop new immersive works for the new Holocaust and Second World War Galleries at IWM London (see Case Study).

- *StoryTrails* was an ambitious project carried out by StoryFutures and funded by Unboxed (see Section 4), where Writers Room principles were directly applied to the training of the 50 emerging creatives who worked on this project.

IMPERIAL WAR MUSEUM WRITERS ROOM

StoryFutures Academy developed an ambitious training programme in partnership with the Imperial War Museum (IWM) and 8 partner institutions around the UK under the auspices of The Second World War and Holocaust Partnership , which is funded by the National Lottery Heritage Fund. Using cutting edge binaural sound design with post-production work from Royal Holloway, five writers were supported to interpret the past in new ways and build a touring digital installation to provide a unique, immersive sound experience for online and in person visitors.

"Innovation in technology is too often separated from creative process. StoryFutures have been able to bridge that gap and get new technologies into the hands of creatives faster - this benefits technologists, storytellers, researchers, audiences and ultimately society. It's thrilling to work in this space: it fires the imagination!"
Michael Rosen, Author

"Working with StoryFutures Academy gave IWM and our cultural heritage partners on the Second World War and Holocaust Partnership Programme access to incredible talent and creative ideas and enabled us to work collaboratively with a range of creative practitioners to produce an innovative and inclusive immersive experience. The unique ability SFA offered to align creative work with a structured R&D programme across story development and audience impact, allowed IWM and our partners to understand the emotional responses of visitors that will ultimately help build better relationships with audiences across the UK."
Rachel Donnelly, Head of Partnerships, IWM

PARTICIPANT PROFILE | AVIN SHAH

Avin Shah began his acting career over 25 years ago, appearing on stage with the Royal Shakespeare Company and National Theatre, in feature films, television, radio, and video games. He is also a writer for an award-winning radio drama series. He participated in a StoryFutures Academy Introductory Lab in 2019, which served as a springboard into the world of immersive.

He went on to attend several other immersive labs and the immersive Theatre Writer's Room, exploring technologies and innovative narratives. He then applied for the UK-Canadian Co-Production Programme for Immersive Storytelling where he formed his company Strictly Immersive to deveop *This is Your Country Too* into a fully VR interactive story. Most recently, Avin and Strictly Immersive were successful in applying for the StoryFutures VR R&D National Showcasing Programme.

"At the introductory Labs it was love at first sight. I had a very visceral response to immersive experience, and I thought, this is a type of storytelling, which I want to be involved with in some way StoryFutures has shown great faith in me and my team realising my vision." Avin Shah

Writers Rooms have introduced over 100 writers to the possibilities of new technologies. As immersive technologies become part of our daily life, the ability of writers to move between traditional entertainment and new digital modes of story (whether in a headset on a device or at a location) are increasingly sought after. StoryFutures Academy has helped empower writers, as creators, as problem-solvers and as experts in how technology and storytellers can best work together.

SECTION 7
LONGFORM ACCELERATOR PROGRAMMES

As the StoryFutures Academy programme progressed, we saw the value of combining the structured training of our Experimental Lab workstream with the hands-on skills development opportunity offered by our Collaborative Co-production workstream. By doing so we created longer 'accelerator programmes' that developed the skills of individuals and the capacities of companies to exploit the business opportunities in immersive storytelling.

These programmes provided much-needed training and kickstarted the development of a number of experimental projects which have gone on to have successful audience-facing exhibitions, attract further funding or win prestigious industry awards.

- **UK-Canada Immersive Exchange** was an international talent development and co-production programme, boosting international collaboration and business opportunities between the UK and Canada (see Case Study).

- **VP Futures** was a collaboration with Future Screens Northern Ireland (FSNI) aimed to upskill UK and NI creative content businesses and studios in Unreal VP and real-time content origination, development and production via mentoring and de-risked access to LED Volume facilities. Supported by ILM and Epic, it boosted creative industries' capacity to integrate virtual production into the traditional film and television sectors (see Case Study).

- **Inclusive Design Accelerator** offered SMEs the opportunity to work directly with InGAME and StoryFutures Academy, Open Inclusion and XR Access, to learn how to apply innovative approaches and new toolkits to inclusive design practice in XR (see Case Study).

UK-CANADA IMMERSIVE EXCHANGE

This talent development and co-production programme was developed for UK and Canadian creatives and producers who wanted to work with immersive technologies. It was supported by an international partnership between SFA and Arts Council England in the UK and the Canada Media Fund, Canadian Film Centre and the Canada Council for the Arts in Canada. The programme was formulated as a response to Immerse UK's 2019 analysis of the UK's immersive economy, identifying that 62.3% of immersive companies were already "exporting products, applications and experiences around the globe". The programme aimed to create stronger export readiness and help better prepare creative companies for international collaborations accessing talent, financial support, routes to audiences and business opportunities across borders. Twenty four UK and Canadian participants were selected to take part, with 6 collaborative projects developed by the cohort awarded a total of £300,000.

"It has expanded my network and knowledge as well as given me a lot to think about including what organizational structure I might need to establish to further support my growth and development with immersive technology."
UCIE programme participant

Since completion of the programme, the two "audience-ready" projects, Darkfield's *Intravene* and FandCo's *The Galaxicle Implosions*, have had well-received audience facing showcases, with *Intravene* featuring at Tribeca and the BFI London Film Festival 2022 (see Profile: Darkfield). All four prototype projects (*Radio Ghost, Acorn, Gloaming* and *Alone Together*) were featured as part of a showcase at SXSW 2022, and *Radio Ghost* also premiered at London's LIFT Festival, going on to win the prestigious Lumen Prize Interactive Award. *Alone Together* went on to launch a full version of the experience in June 2023 at the Stages Theatre Festival, Canada.

The UK-Canada Immersive Exchange was the first UK/North America immersive exchange programme developed to replicate the types of schemes that exist for other areas of the screen sector, and to overcome a lack of policy pathways and co-production incentives that exist in other sectors.

PARTICIPANT PROFILE | DARKFIELD

DARKFIELD produces innovative immersive experiences at the forefront of technology and theatre, both as location-based experiences and digital work. To date their work has reached over 350,000 audience members worldwide and has been featured in major festivals such as the BFI London Film Festival, Venice International Film Festival, IDFA, Tribeca Film Festival, Raindance Film Festival and SXSW.

Intravene is an immersive audio experience using binaural and spatial sound to plunge listeners into the heart of the overdose crisis in Vancouver. Over 20 minutes, *Intravene Episode One: Benzos* immerses listeners in the intense audio environment of the Overdose Prevention Site (OPS), where a user has inadvertently injected a hit contaminated with benzodiazepines. Tracing the story of the new challenges thrown up by benzos, *Intravene* brings the audience into the world of users, activists and policy makers.

DARKFIELD Executive Director Andrea Salazar took part in the UK-Canada Immersive Exchange programme, where she formed a collaboration with documentary-maker and fellow cohort member Brenda Longfellow, and drug user activists Crackdown. Together they created the *Intravene* project, which went on to be awarded a grant to produce an 'audience-ready' project as part of the UCIE programme.

> "The UCIE programme SFA made available was a truly unique experience for me as a producer and for Darkfield as a company. I can honestly say that, on top of guiding us and allowing us to create one groundbreaking piece of immersive factual artwork in collaboration with our international partners, this programme changed and improved our practice as a company in an invaluable way."
>
> Andrea Salazar, Executive Director, DARKFIELD

This project went on to secure a Canadian Social Science and Humanities Research Insight Development grant for $60,000 (£41,000), which the team used to produce additional podcasts and support the container show in London. *Intravene* had its world premiere at Tribeca 2022, and was selected for the BFI London Film Festival 2022.

CASE STUDY | VP FUTURES

Influenced by the industry needs identified in StoryFutures Academy's 2021 report *Virtual Production: A Global Innovation Opportunity for the UK*, VP Futures was a unique production accelerator programme delivering a package of targeted virtual production training, development and production support for creative screen industry SMEs in the UK and Northern Ireland. The programme was run as a partnership between StoryFutures Academy and Future Screens NI (FSNI), supported by bespoke mentorship from Industrial Light & Magic (ILM) and Epic Games.

After a UK wide competition, teams from eight companies – Sunnyside, Engine House, Draw & Code, Liminal Stage Productions, Retinize, Aura, Soluis and TAUNT – were selected for a two stage training and R&D programme: an intensive 8-week 'Development Zone' training programme which culminated in an industry judging panel selecting two companies to receive funding and progress to the 'Production Zone,' with shoots taking place at LED Volumes at Future Screens NI and StoryFutures Academy respectively.

The companies selected for the Production Zone were Sunnyside Productions and Aura Digital Studios, who were funded to put their training into action and produce a VP prototype production. SFA also produced a five-part behind-the-scenes series to share the insight gained on the programme with the wider industry.

> "It's been a totally inspiring and rewarding experience to meet, mentor and be part of such a forward looking programme as VP Futures by StoryFutures Academy and Future Screens NI. Each group brought so much to the table in terms of ideas and enthusiasm to learn about the new and highly dynamic world of Virtual Production. As world leaders in this space we are thrilled to see and be part of training and mentoring the next generation of Virtual Production specialists in the UK."
>
> Ben Morris, Creative Director, Industrial Light & Magic (ILM), London

PARTICIPANT PROFILE | SUNNYSIDE PRODUCTIONS

Sunnyside is an independent television production company formed in Scotland in 2012 by filmmaker Andrea Miller and Jerry Foulkes to create and produce factual, specialist factual and factual entertainment television programmes and formats. Credits include *How Clean Is Your House, Jimmy's Food Factory, Imagine, Restoration* and *Celebrity Home Secrets.*

The Surreal Life is a four-part, high-budget TV series in development about the life of Edward James, a fascinating but little-known, wealthy British aristocrat who, despite his lack of fame, was one of the most important figures of 20th Century and Surrealist Art. The project consists of several scenes which explore a visually rich period in Edward's life and a protype scene demonstrating the impact of VP on storytelling, to pitch to funders and commissioners. The project also involved the writer as part of the development period, learning the possibilities and limitations of VP as writer/producer team.

During the VP Futures collaboration, the Sunnyside team were introduced to the idea of developing a VP format that allowed them to explore the work of a different artist in each episode, recreating a range of artistic works in Virtual Production. This created a new opportunity to use VP to tell documentary stories in a novel way. The writer, Jon Gilbert is now much more likely to explore alternative genres and ways of writing that expand his writing toolkit. The team feel they can now talk with practical authority about how to shoot and write for the technology.

Courtesy of Sunnyside Productions/RWP Media

> ❝VP Futures was an incredible opportunity to go from almost zero knowledge about filming for Virtual Production to a really solid grounding in the terminology, techniques and potential of a VP shoot. The mentorship from ILM and Epic Games, as well as the mentorship from the project leaders, was exceptional.❞
> Jon Gilbert, Screenwriter, Sunnyside Productions

> ❝We were supported at all times and the learning curve was phenomenal; we went from being near-total novices to (not quite) experts in six weeks! As a crash course in VP, it was both intensive and highly rewarding and has left us feeling confident and inspired to continue.❞
> Andrea Miller, Producer/Director, Sunnyside Productions

PARTICIPANT PROFILE | AURA DIGITAL

Aura Digital Studios is a micro studio founded during a university placement year in 2021. It currently operates as B2B, working with different clients across the arts, education, film and TV. With the launch of Studio Ulster in Belfast, the company expects to see an increase in demand for VP companies in NI. Aura are looking to position themselves to meet these new business opportunities as specialists in VP in Northern Ireland - working with LED volume screens, camera tracking set up, digital asset management and Unreal Engine for film production.

Stone Hearts and Careless People is a short-film supernatural romantic tragedy set in a world much like our own. *Stone Hearts* utilises core Virtual Production methods, allowing the team to use the LED volume to portray the passage of time with real-time lighting, and the live compositing of CGI characters into the shoot.

Specific technical challenges were addressed in VP Futures masterclasses and key solutions were found. Subsequent aims include future-proofing the company with new Virtual Production and VFX skills and fostering Northern Irish talent to achieve a more robust local Virtual Production industry, proving the viability of smaller scale Virtual Production companies to larger vendors.

> ❝With the development of our Playbook... we have documented our learning processes, technical troubleshooting, and research, so that we can have a legacy document of our work in this time. This will be invaluable as we continue to grow as a company and onboard new staff into our virtual production pipelines.❞
> Josh McAvoy, Co-Founder and Director, Aura Digital Studios

Courtesy of Aura Studios

CASE STUDY | INCLUSIVE DESIGN ACCELERATOR

The Inclusive Design for Immersive Experiences Challenge offered SMEs the opportunity to work directly with InGAME and StoryFutures Academy, Open Inclusion and XR Access to learn how to apply innovative approaches and toolkits to inclusive design practice in XR, embedding better inclusive design in the creation, development, production and testing of immersive content and experiences.

With access to cutting-edge expertise in inclusive design, immersive production, commercialisation support, audience insights and user testing, the programme included focused workshops to help teams upskill, as well as the opportunity to be selected for a further eight-week programme and £35,000 development funding to test and embed inclusive innovation concepts and user-centred features within existing, near- to-market IP.

" We created the Inclusive Design Challenge to help develop confidence, understanding and capabilities in the practice of inclusive innovation for immersive content. Embedding inclusive design practices improves UX quality, consistency and durability. This programme will ultimately empower companies to do better business by creating better things as well as creating immersive experiences that are enjoyable and accessible to everyone."
Fiona Kilkelly, Executive Producer, StoryFutures Academy

Selected companies included 3Finery, 3DNovations, The VR Hive, Yaldi Games, Echobubbles, Copper Candle, Forest Tribe, Trial & Error, Hyper Luminal and Sugar Creative. The companies chosen to develop their prototypes were Cardiff-based innovation studios Sugar Creative (mentored by StoryFutures Academy) and indie games studio Hyper Luminal Games (mentored by InGAME).

" Our aspiration is to create a Hyper Luminal 'Standard of Excellence' for inclusive and accessible games for all. With this fantastic opportunity we will be able to build better pipelines and processes, which include vital user testing and feedback with inclusive communities, and invest time in including more diverse characters, stories and customisation options."
Searra Dodds, Senior UX/UI Designer, Hyper Luminal Gamesy

SECTION 8
SKILLS PIPELINE

This workstream was designed to build training capacity across the UK to enable the development of a national skills pipeline for immersive production. This included producing a set of skills reports charting the needs of the immersive production sector, as well as the growing need for Virtual Production skills in the screen industries. It also included our Train the Trainer and Early Career Research programmes, aimed at building the UK's capacity for immersive and virtual production training and research amongst HEIs.

Immersive skills report

The StoryFutures Academy report, *Skills for Immersive Experience Creation: Barriers to Growth in the UK Economy* was published in January 2020, mapping out the skills landscape in terms of strengths, gaps and the steps required to build a successful immersive skills pipeline. It was greeted by the then Minister for Universities, Science, Research & Innovation, Chris Skidmore, as an "important report that will help make the UK a world leader in immersive" and welcomed by Sir Peter Bazalgette as "pinpointing what UK plc needs to do to make sure we're developing the necessary skills to dominate the immersive market."

The report was conducted in collaboration with Immerse UK and the UK's leading screen industries trade bodies, Pact, UKIE, British Screen Forum and UK Screen Alliance, drawing on data from over 100 companies, including interviews with 25 leading sector figures. The launch was attended by 136 industry professionals and academics, and reported in major industry news outlets including Broadcast, FE News and Times Higher Education.

Onward journey highlights:

Key findings from the report included:

- **Critical shortages are leading to a fight for talent.** 80% identified significant barriers to growth caused by a lack of technical skills.

- **There is a crucial lack of experience.** 73% of those working in immersive have worked on less than five projects, with lack of experience particularly acute in senior leadership roles.

- **Expertise in the use of real-time game engines** was identified as the single most important skill for successful immersive production, yet it is also considered the biggest skills gap.

- **The skills pipeline is a major concern.** 44% of respondents were worried about the lack of graduates with relevant skills to keep up with demand.

Virtual production skills report

In late 2021 and early 2023 we released two skills reports on Virtual Production. The first report mapped the emerging demands for VP skills across not only immersive, but also the film and TV industry, whilst the second report dived deeper into key skills requirements and how these can be developed in the sector. Our 2021 report identified both the hard and soft skills required to translate innovation practice into economic growth, mapped via a unique skills mandala. The final report was updated with detailed analysis of the results from a quantitative skills and R&D survey which was designed to gain an understanding of the fast-changing developments in virtual production in the UK. The resulting data provides insight into how UK companies can take steps to take advantage of the global opportunity that VP presents.

Key findings from the report included:

- Despite the availability of new training initiatives during 2023, the demand for training continues to outstrip supply.

- There is an urgent need to rapidly develop new skills and grow new talent and capacity in organisations that show potential and appetite to use VP, in order to meet rising demand.

- Communication skills are key, which can only be honed by time working on set, gaining valuable experience in the practice of VP.

- Most organisations involved in VP are R&D intensive. They are actively carrying out research and development on live VP projects (79%). At the same time, the vast majority of organisations received funding below £10k, making it difficult to sustain intensive R&D cultures in these organisations.

- Micro-businesses and SMEs are in particular need of increased R&D funding from the public sector, to help them become VP-ready businesses and sustain growth in this sector.

The report informed StoryFutures Academy's VP Futures, Early Career Researcher and Train the Trainer programmes, enabling researchers and companies involved to understand how to build up the right skills within their teams.

DEVELOPMENT

POSTPRODUCTION

PREPRODUCTION

PRODUCTION

Senior Team Business
Development - budget,
planning skills

4

1 Art Dept
Game Engine skills

5 Film-Games Culture
Integration

3 Asset-building and
Optimisation skills

2 Coding &
Engineering Skills
(see R&D)

Unreal:
Sequencer
Digital
storyboards
Screenshots
from VR
Virtual Scouting
Preproduction

Set - actors
management
Set - space
management
schedule
management

Story crafted
for VP

Story: response to
technical possibilities

Understanding
hidden R&D costs
Sourcing VP skills
Casting
Early planning of
workflows and
interactions
Interviewing HoDs
Bidding
Budgeting

Provision of cross-
training/ branching
out from a home
discipline
Support for HR to
understand new roles
Aptitude and
interests
profiling
Technical talent
casting

Digital Continuity:
knitting together of
tools and metrics
Digital Security
Digital Networking
Digital Admin
Workflow integration

Physical object
placement
3D modelling and
rendering
Virtual set dressing

Style guide
Design
principles
Colour theory
Hand-drawn storyboards,
animatics
Set - foreground
design
Physical/virtual
prop doubling
Location
scouting
Scene blocking
Primary
research into
topic areas

IN-CAMERA VFX
Actors
Script
Director

PRODUCTION DEPT
PRODUCTION MANAGEMENT
ART DEPT
SOUND POST
PICTURE POST
EDITORIAL DEPT
VFX
ON-SET VFX DEPT
CAMERA DEPT
VP/VAD DEPT

FINAL DELIVERY
PRE-PRODUCTION
ART DEPARTMENT
VISUALISATION
POST-PRODUCTION
EDITORIAL
PRINCIPAL PHOTOGRAPHY
PREVIS EDITORIAL

Script Writer
First AD
Director
Producer
Line Producer
Second AD
Production Manager
Supervising Art Director
Production Designer
Art Dept Crew
DoP
VP Supervisor
Technical Artist
VP Stage Operations
Comp Technical Artist
Colour Technical Artist
Video Playback
Art Dept Physical Standby
Focus Puller
1st AC
Camera Operator
DoP
Operating Gaffer
Lighting Desk Operative
Grip
Hardware Supervisor
VP Technical Director
VP Supervisor
VFX Supervisor
DIT
Editorial 1
Editorial 2
Editorial 3
Post 1
Post 2
Post 2

Tech R&D
Hybrid techniques
VP Studio:
management
LED wall design
physical setup
Display
technologies reqs
Video processing reqs
eg projection
Real-time
troubleshooting
Problem-solving,
Adaptability
Appetite for
collaboration
Documentation

Creating and
preparing 3d
content: real-time
repurposing
3D asset conversion
Location
photogrammetry
Unreal - object
placement
On-set virtual Art
Department and
Gaffer standby
Knowledge of
film and moving
image

Unreal
Versioning:
Perforce, SVN,
Github
Custom tracking
system
Previsualisation
Shot design
Blocking virtual
elements
Final 3D asset
creation
Virtual
cinematography
Modelling in ZBrush
and 3DMax and
bridging into Unreal
Shader code
prototyping
operation uging
Virtual
VR/AR
authoring

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation

Modelling
Environment
Optimisation
Layout
Physical
simulation
Lighting
Colour
Camera moves -
procedural

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation

Live
compositing
Camera moves
Wireframe
Tracking
systems
MoSys Ncam,
OptiTrack
Scripting MEL,
Python, C#,
Javascript and
C++
DeepMotion -
markerless
MoCap via
iPhone

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Real-time
colour grading
Virtual set color
Correction
Content loading
Calibrate
lighting

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
The matte line:
LED wall blending
Virtual set dressing
Costumes with VR
sculpting and VR
designs
Set dressing and
location
enhancement

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation
Colour and light
metering
management
LED as light
source
Green screen
Brompton
Ncam
Nuke

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation
LED as light
source
Lighting
software
Green screen
Patches

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation
On-set
knowledge: Eg:
'how to speak'
to Camera/AC
Scheduling
Camera set up
Trackers set up
and calibration
and metadata
capture (not in
camera)
Track
MoSys/unreal
metadata
Multiple
workstations per
virtual camera
supervision
Prep of scenes
Set calibration
video I/O
timecode
Genlock Sync

Appetite for
collaboration
Problem-solving,
Adaptability
Real-time
troubleshooting
Documentation
VP bidding
VFX triggering
Workflow
descriptions
Wall content
Visual effects
shots
Integration
and
implementing
new workflows
Onset Camera
Oversee LED
Handover to
VFX
Set continuity
Network
specialists:
networking
infrastructure
Scripted to
unified interface
LED output

Retargeting
Integration from
Unreal
CG characters
Customised
softwares/hardware
Unreal shading tree
environments
MoCap

Appetite for
collaboration
Problem-solving,
Adaptability
Documentation
Experience
handling VFX
data
Experience of
handover of
highly layered
projects

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TRAIN THE TRAINER OUTCOMES

18 HEI'S DIRECTLY BENEFITED

547 STUDENTS TRAINED DIRECTLY

2972 STUDENTS PER YEAR ON NEW COURSE

137 INDUSTRY COLLABORATORS

172 ACADEMICS / TRAINERS TRAINED

65 NEW OR MODIFIED COURSES

122 DISCIPLINES INVOLVED

Train the Trainer

Train the Trainer (TTT) was a research and training initiative for UK higher education institutes with the following goals:

- To develop a national talent base representative of UK diversity for immersive storytelling, building UK capacity for immersive production.

- To achieve this by increasing the numbers of higher education (HE) trainers with immersive skills, and facilitating the design and validation of university courses offering an interdisciplinary approach, and the teaching of creative and technical skills required in immersive production.

- To positively impact student experience and route to industry - up to 3,000 students a year now benefit from industry facing immersive production and development skills courses at universities right across the UK.

- To provide an infrastructure that supports future skills development and continued talent pipeline building.

- To develop a collaborative cohort-led programme to training trainers at HE level that invited a level of co-design with participating teams to ensure a response to their needs.

- To support projects all across the UK.

The programme supported three cohorts over three years, with 19 higher education institutions (HEI's) representing all corners of the UK including all four Nations.

The programme of support offered by Train the Trainer included three intensive two-day bootcamps for teams to learn a range of new immersive narrative, technical

and pedagogical skills. This included practical hands-on training, masterclasses with industry professionals, case studies and peer to peer learning.

Each team took 6 months to complete their training and their projects, integrating these into their curriculum delivery and development at each university. They were supported throughout by a team of mentors, each offering a different specialism and skillset, and by the SFA senior team.

> "Train the Trainer is structured so that you work closely alongside other immersive storytelling projects, allowing academics to learn from each other's projects both in format and content."
> Dr Will Shüler, Mentor on Train the Trainer, Vice-Dean for Education, School of Performing & Digital Arts, Royal Holloway University

> "An incredibly useful and informative set of events. The breadth of subject matter was unparalleled to other learning events I have been involved with. All of the trainers were extremely knowledgeable and conveyed the information exceptionally well. Many of the elements will be taken away to influence the teaching of the BSc in Computer Games Programming."
> Prof. Sophy Smith, Professor in Creative Technologies Practice, De Montfort University

> "It [TTT] completely changed the way we think about courses and how we develop the curriculum-the tools and learning are embedded into so many of our courses. What was great about working with StoryFutures … was it gave the space to explore 'ideas' and new thinking which you can only do 'outside' your own institute."
> Dinah Lammiman, Professor and Course Leader, UCL MA Immersive Factual Storytelling

Participating HEIs and projects:

Cohort 1

1. **Abertay University Dundee & University of Hertfordshire** team led by Matthew Bett and Peter Richardson, with project on *Practical Applications of Virtual Production Techniques in Education for the Film and Entertainment Industry*, which explored the skills and workflow demand of Virtual Production.

2. **Bath Spa** team led by Matthew Freeman, with project *Immersive Promotion* exploring innovative promotional content to broaden the market for AR and VR experiences. Industry collaborators: Storycentral Ltd, Limina Immersive, Anagram, Studio McGuire and The National Gallery.

3. **Falmouth** team led by Klaus Kruse, with project *Not Near Enough* exploring collaboration on immersive experiences in a virtual environment, for a theatre context. This project was selected for showcase at the National Student Drama Festival.

4. **University of Sussex** led by Alex Butterworth, with project *Past Presence* exploring how to design and teach new techniques for immersive storytelling about historical object biographies. Industry collaborators: Mnemoscene.

5. **UCL** team led by Dinah Lammiman on project *What and Who Makes an Immersive Production Work* looking at establishing frameworks for the skillsets, roles and workflows required in XR production. Industry collaborators included: BBC, Satore studios, Passion Pictures, Picture This Productions.

6. **Royal Holloway, University of London** team led by Mary Matheson and Will Shüler, with project on *AR Storydecks/Beyond the Zoom and Gloom* on using web-based AR techniques for online learning. Industry collaborators: Mnemoscene.

7. **NFTS** team led by Tim Wright, with project *Interactive & Immersive Screenwriting* investigating new writing techniques involving interaction design, interdisciplinary working and the creation of storyworlds in immersive environments.

Cohort 2:

1. **De Montford** team led by Sophy Smith, with project *Transdisciplinary Prototyping Labs for Immersive Storytelling* focusing on how interdisciplinary teams can best collaborate to create a prototype using this new technology. Industry collaborators: Motionhouse.

2. **Greenwich University** team led by Jodi Nelson on project, *How to Be Good: A Case Study for Virtual Production Workflows*. Industry collaborators: Mo-Sys, Sweet Take Studio.

3. **Manchester Metropolitan University** team led by Toby Heys, with project *Genre Sound Tracking in the Expanded Documentary World of Acoustic Kitty,* exploring how sound tracking can be harnessed in novel ways. Industry collaborators: BBC R&D, composer and musician Barry Adamson.

4. **Queen Mary University of London** team led by Tina Chowdhury, with project *Engineer the Future* exploring how immersive storytelling can be adopted by engineering students, focusing on biomedical engineering and communication with parents and carers of those receiving medical care. Industry collaborators: Ideas Foundation, Octagon studios, Canon, Tik Tok.

5. **Royal Holloway, University of London** team led by Nuno Barreiro, with project *Interaction Design for the Masses* developing a new user-centred design module focusing on interdisciplinary collaboration and rapid prototyping. Industry collaborators: Mnemoscene.

6. **University of Surrey** team led by Jon Weinbren, with project *Transience of Memory* focusing on how interdisciplinary teams can collaborate on an audio visual narrative project. Industry collaborators: Target3D, Figment Productions.

7. **University of the West of England** team led by Verity McIntosh, with project *Can you hear me now?* exploring how to create dynamic immersive soundscapes and understand the workflows involved. Industry collaborators included: artist and composer Duncan Speakman.

Cohort 3:

8. **University of Plymouth** team led by Andrew Prior, with project *Watercourse: Immersive Actor Training for Virtual Production* utilising real-time mapping using a 360 dome as a volume. Industry collaborators: Theatre Royal Plymouth, Hi9.

9. **Ulster University** team led by Terry Quigley, with project *Being Together: Reimagining Community Connections Through Immersive Storytelling Experiences*, which was implemented within Graphic Design and UX courses. Industry collaborators: Dumbworld, Whitepot Studios.

10. **Birmingham City University** team led by Dr Poppy White, with project *Eco Office Game* focussing on the benefits of multi-disciplinary collaboration while developing a VR game-for-good about the impact of energy consumption. Industry collaborators: Taran3D, Steamhouse, Associated Architects, writer/director Javier Rayon.

11. **Royal Holloway, University of London** team led by Christopher Hogg, with project *Contexted Spaces-Writing for the Real-Life Metaverse* developing a digital-first course exploring how to tell stories in the metaverse with inclusive design embedded throughout. Industry collaborator: Playlines.

12. **Cardiff University** team led by James Taylor, with project *Immersive Heritage and Folklore* focusing on the creation of immersive experiences for heritage sites. Industry collaborator: This Great Adventure (TGA), National Museum of Wales, Literature Wales.

Impact highlights:

Train the Trainer projects have made an impact in a number of ways across participating institutions.

Manchester Metropolitan University (MMU) integrated Train the Trainer project insights into 14 different courses including BA (Hons), BSc (Hons) and MA courses. At De Montfort University (DMU), 14 team members were involved in the training across 13 subject areas, including academic and technical staff. The project also catalysed their work with industry partners.

"TTT developed our capacity to collaborate with industry and has resulted in a number of Knowledge Exchange projects, KTPs in-development and partnerships on external funding bids [such as] Accelerator Hubs, Innovate UK and AHRC funding."
Prof. Sophy Smith, Professor in Creative Technologies Practice, De Montfort University

Bath Spa University published the first ever industry guide entitled *How to Promote Immersive Productions*. It embedded training modules into 8 different courses and created a VR campus tour for prospective students and their parents, transforming its approach to admissions and open days.

TTT projects at the University of Surrey, University of Greenwich and Abertay University Dundee successfully accelerated skills development among trainers and students with great impact and triggered meaningful ongoing partnerships with leading industry players in VP (see Case Studies). The collaborations also impacted De Montfort, which is now developing an MSc in Virtual Production.

Royal Holloway, University of London has embedded the new 'User centred design' module devised through TTT within three schools and has won an award for the implementation of AR Storydecks into performance and digital arts courses. The instigator, Will Shüler, was shortlisted for Most Innovative Teacher of the Year in the Times Higher Education Awards 2022.

Queen Mary University transitioned to promote STEAM over STEM, developing a new skills curriculum to embed storytelling and creative communication into its engineering faculty, and launching the 'Ideas Foundation' to promote and teach 'storytelling' across a number of courses.

"As a result of the TTT programme, we are using and sharing learnings with other academics and students through our new skills curriculum that embeds storytelling and creative communication for the QMUL engineering faculty."
Heather MacRae, Chief Executive Ideas Foundation and honorary fellow at Queen Mary University London

CASE STUDY | 'TRANSIENCE OF MEMORY', UNIVERSITY OF SURREY

This project, from the second Train the Trainer cohort, was led by Jon Weinbren of the University of Surrey, with a team of 7 academics and over 12 industry collaborators from companies including Target3D and Figment Productions. The project focussed on how teams from disciplines including film, animation, sound design, music composition, performance and media technology can collaborate on an audio-visual narrative project. The project is an example of how TTT facilitated the creation of an experimental virtual production film, *Among the Cherry Trees*, with staff, students and collaborators all playing key roles.

The project led to the successful launch of an ambitious MA in Film, Animation & Digital Arts (FADA) course in September 2023. The course is a future-facing postgraduate moving-image creation programme for a new generation of creatively adventurous and technically ambitious directors, producers and practitioners, and includes a collaborative module developed and flight-tested during the TTT initiative.

Through TTT and subsequent productions, Surrey report that they have been able to engage with numerous industry partners including Aoto, Brompton Technologies, Mo-Sys, Satori Studios, Creative Technologies, Garden Studios, Creative Drive, Final Pixel and many others.

❝ **TTT helped us network with other universities who were exploring similar areas and opened up interesting conversations and skills sharing. We are now developing several short courses in areas such as rapid digital character creations, Virtual Production, and Unreal Engine for film/animation, which will have local and regional impact, and we are reaching out to skills development agencies.** ❞
Jon Weinbren, Programme Director for Film, Animation and Digital Arts, University of Surrey

Courtesy of University of Surrey / Jon Weinbren / Bojan Brbora 2021

CASE STUDY | *HOW TO BE GOOD*, UNIVERSITY OF GREENWICH

Led by Dr Jodi Nelson-Tabor, this team from the University of Greenwich, with the support of leading industry stakeholders such as Epic, Mo-Sys and Nexus Studios, were supported to create a training programme to address VP workflow, helping the university build industry-ready graduates with the right skills to immediately enter the workforce.

The team's project focused specifically on 'green-screen hybrid' Virtual Production, where actors are shot in a green-screen studio and inserted into a virtual environment created in Unreal Engine in real-time. The project consistently brought together industry experts, academics and students. The core VP shoot team consisted of 11 students, 7 academics and 7 industry technicians, creating a new agile workflow, quite different from traditional filmmaking. In addition, the team held a 2-day VP co-design workshop with students to help create a new module to reflect these new working practices.

The results of the project include an final-year VP course that forms part of an existing final year undergraduate module, with VP taught skills now embedded into a broad range of sound, cinematography and film department courses.

UNIVERSITY of GREENWICH

❝We would never have had the opportunity for so many of our HODs to learn these new essential VP skills - nor would we have had such access to those in industry working at the cutting edge of VP such as Mosys and Final Pixel. StoryFutures was key to achieving this.❞
Dr Jodi Nelson-Tabor, Senior Lecturer - Film and TV Production, University of Greenwich Academy

CASE STUDY | ECR TONIA KO OF ROYAL HOLLOWAY, UNIVERSITY OF LONDON AND SCANLAB ON *FELIX'S ROOM*

Selected by a jury from over 300 international applications, digital-hybrid project *Felix's Room* by Adam Ganz and UK SME ScanLAB Projects premiered at the Berliner Ensemble in June 2023 as part of Spielräume! funded by the German Federal Cultural Foundation.

Supported by StoryFutures and global theatre company Complicité, it tells the story of Adam's great-grandfather Felix Ganz, a businessman and art collector from Mainz, who was imprisoned with his wife Erna before being murdered in Auschwitz concentration camp in 1944. Using 3D scanning and projection technology, the audience is immersed in the lives of Felix and Erna through a musical narrative using holographic effects.

A single chest of drawers belonging to Felix and Erna that survived from that room is a key part of the production, interacting with music, sound, lighting, projections and actor interplay. It was developed by StoryFutures Early Career Researcher Tonia Ko from her research on amplifying the sounds of objects, and put into practice using a combination of live elements of composed and recorded music with 3D generated visuals.

ROYAL HOLLOWAY UNIVERSITY OF LONDON

❝The many brilliant practitioners who passed through StoryFutures Labs helped me understand the possibilities of the new technologies and introduced me to the incredible work of ScanLAB Projects.❞
Prof. Adam Ganz

Tonia says "This opportunity has been unique and eye-opening in so many ways. It has significantly broadened my professional network."

ScanLAB reported that it was a delight to work with Tonia and her creative ideas. "Our studio had no experience working with amplifying the sound of objects. (We) have been particularly inspired by the exploration around the chest of drawers and how through music, sound, lighting, projections and the actors' interaction with this prop, it can evoke such significance in meaning and command deep presence onstage. We have learnt a lot in the process."

Early Career Researcher programme

To continue developing a skills pipeline for the immersive sector, in 2021/22 StoryFutures trialled a route whereby Early Career Researchers (ECRs) working on the AHRC's Creative Industries Clusters Programme could apply their research and skills to placements with industry partners. By doing so, the programme aimed to:

1. Connect research discovery and insight with the companies working on innovation and R&D projects - enabling ECRs to develop *applied* research.

2. Create a pathway for research developed through the Clusters to be commercialised with industry partners.

StoryFutures drew on the success of the bootcamp/placement model and relationships developed with a broad range of creative industry partners, to create an ECR training and placement programme.

Throughout the extensive research and consultation phase exploring both ECR and industry needs and areas for alignment, there were consistent challenges predominantly around mismatched interests and timeframes of ECR's and SME's. Despite several challenges, the programme trained 18 ECRs and facilitated 9 ECR placements.

ECR feedback and recommendations

A range of opportunities were created for ECRs that enabled researchers to understand how to make their work more relevant for industry. Researchers reported that the programme gave them more legitimacy for working with industry, while the ECR placements gave companies access to new ideas and talent with an opportunity to de-risk exploring new areas of business. For both, it built bridges in understanding each others' language. This said, it proved challenging to meet our target KPIs in this area, despite an extensive research and consultation phase and a number of different models trialled. The consistent challenges were predominantly around mismatched

interests and timeframes of ECR's and SME's. For this reason, while there were many insights and learnings from the projects that did go ahead, overall our conclusion was that the placement programme was not well suited to ECRs at scale. Recommendations for the future include:

1. To address the tension between long-term research and the short-term industry need to exploit immediate advances in innovation for competitive edge and develop a programme that draws on challenge-led research models (such as the newly announced Collaborative Doctoral Training Partnership between the University of Surrey and Royal Holloway in AI for Media Inclusion. Such a model will enable ECRs to work on more long-term innovation challenges that industry cannot solve alone, and both parties can collaborate on industry-led short sprint challenges where research in progress learnings are valuable to industry to make incremental changes to a product or production.

2. ECR Industry-Academic Networking Grants: Both AHRC and ESPRC could prioritise funding competitions that are explicitly orientated towards building an ECR network of scholars able to work with industry through collaborative R&D programmes independent of the Creative Industries Clusters Programme. A ring-fenced competition could produce communities of practice at much earlier stages in research careers that will build long-term benefits to industry by fostering long term links.

3. Consider Fellowship funding models which embed an ECR with an industry partner, such as the InterAct Fellowship[3], in order for ECRs to gain work experience at companies with long range R&D interests. Such a programme should have an emphasis on building a cohort intake of ECRs who can share learning rather than work in isolation, as this proved to be one of the most positive elements of the models trialled by SFA.

[3]InterAct Fellowship: https://interact-hub.org/early-career-research-fellowships/#:-:text=Our%20Early%20Career%20Researcher%20(ECR,and%20diffusion%20of%20digital%20technology

SECTION 9
LEGACY
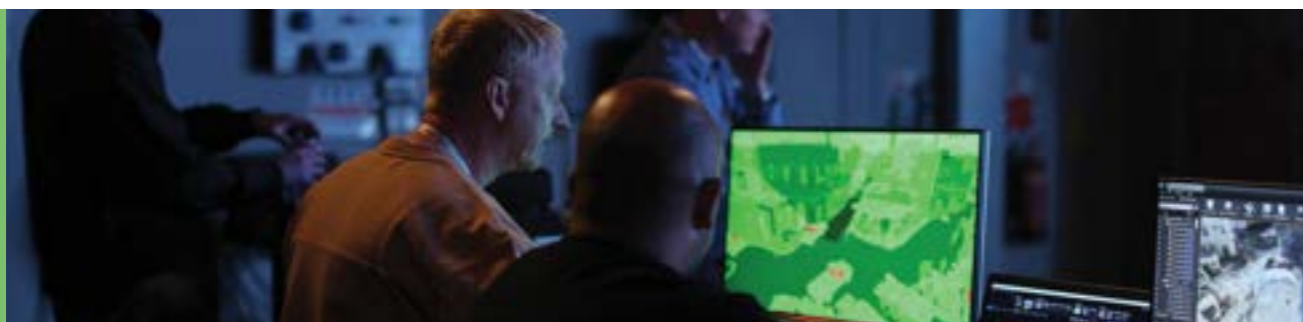
Courtesy of Wilder Films

As we conclude our programme of work, we reflect on how proud we are of the volume and quality of initiatives we have delivered for the UK industry, and the visible impact they continue to have. This track record has significantly contributed to our recent successful bid to develop the CoSTAR National Lab, and we are also pleased that several strands of the work continue to attract excitement and further investment from funders. This will enable us to continue some of the crucial skills development work we have started, as well as serving audiences in the process.

The programme has also had a profound and lasting impact on the two institutions that delivered it, directly benefiting students and researchers as well as influencing future strategy.

Thanks to this range of continuing activity, we hope that the StoryFutures Academy legacy will continue to be felt across the sector for many years to come.

"The work that StoryFutures Academy has done in mapping the skills needs across the sector have been incredibly important for the industry. They have shown that the skillsets we're training people in now are not necessarily going to be relevant to the opportunities of the future, and it would be a tragedy for young people studying today not to learn about these things that are going to be transformative for the audiovisual industries in the UK.

We want to have the world class skills and IP in the UK, created by the UK, for the UK, and not just be a service sector for other people. Immersive and Virtual Production represent a huge opportunity and one that we can take a world leading position in, thanks to the work of StoryFutures Academy."
John McVay, Chief Executive, PACT

"Our members comprise those from across Visual Effects, Animation and Post Production; three areas which are very much impacted by emerging technologies. VR, AR and Virtual Production have been very interesting to our members, and StoryFutures Academy has provided them with a way to get involved and get ahead. SFA sits at the high-tech nexus of animation, VFX and games, and has played a crucially important role in facilitating knowledge sharing across the industry. We've always been forward thinking as a sector, and initiatives like SFA help us to maintain our position on that front. In my view, that's money well spent."
Neil Hatton, Chief Executive, UK Screen Alliance

New projects and legacy activities

CoSTAR National Lab

By far the most significant development since the conclusion of the programme is the awarding of the CoSTAR National Lab programme of work to a new partnership led by Royal Holloway, University of London, with core partners the National Film and Television School (NFTS), Pinewood Studios, Disguise, BT, Surrey County Council, University of Surrey and Abertay University. The CoSTAR National lab, part of the wider CoSTAR Network, was announced as part of the government's Creative Industries Sector Vision to maximise the potential of the UK creative industries and grow the economy.

StoryFutures Xperience

This initiative builds on the collaboration established through *StoryTrails* with our sister programme, StoryFutures Creative Cluster. Through *StoryTrails* we were able to develop 6 VR experiences as part of a nationwide tour of 15 libraries. The appetite for VR in these venues was tremendous and we established a legacy training and equipment programme with the

libraries to continue our work. This programme was extended to regional branches in each of the library locations. The core central teams, who were trained during the main programme, were trained again during legacy and then supported by StoryFutures and StoryFutures Academy to go out and train their colleagues in other branches. This massively widened the number of librarians understanding and adopting the tech and experiences: 18 libraries are now involved with 903 librarians trained.

The success of this programme saw Meta make its largest ever European donation of headsets to StoryFutures to enable a national network of testbeds to be established across the 18 libraries and 6 cinema venues. Including Chapter, Cardiff; Dundee Contemporary Arts Centre, Dundee; Queens Film Theatre, Belfast; Showroom Cinema, Sheffield and Depot, Lewes. These partners have received specialist extensive training from the StoryFutures team for audiences to enjoy a range of VR experiences – further supported by a reversioning R&D call by StoryFutures to develop over 20 titles for audiences to experience from the R&D programmes run by UKRI across Audiences of the Future and Creative Industries Clusters programme. This work ensures that R&D funded prototypes have a life beyond their immediate production and find larger and mainstream audiences, developing the UK audience appetite for immersive experiences.

Thanks to the support of the BFI, awarding National Lottery funding, this programme is now helping to build a sustainable cultural network for VR exhibition by providing unprecedented infrastructure for venues to showcase VR to audiences. By 31st October 2023, the programme had undertaken 205 activities and reached a further 4,100 beneficiaries. At the end of the StoryFutures Academy project, StoryFutures continues to support the development

of this programme and we hope that work from UKRI via competitions such as XRtists will enable more VR work to reach mainstream audiences via the Xperience distribution network.

"Immersive technologies are already being used to teach and learn in exciting new ways, and they have a tremendous potential to transform cultural and creative experiences for a multitude of audiences. We are delighted to support StoryFutures and look forward to seeing people join the programmes they offer."
Matthew Sanders, Education and VR Director, Global Affairs at Meta

StoryTrails 2.0

In August 2023, StoryFutures secured funding for a programme entitled 'StoryArcs' run by University of Bath Spa 'Story Society,' based around building storytelling toolsets. This has enabled a funded Story Associate to work with us in developing a more democratised approach to tooling and participatory storytelling that will allow people to tell interconnected stories in 3D. The ambition is to develop a second iteration of our 2022 immersive storytelling project, *StoryTrails*, continuing our legacy work with libraries as hubs for communities to reimagine their local heritage for the metaverse.

Institutional legacy

National Film & Television School

The programme has helped NFTS to build up internal expertise and resource; delivering a range of benefits to students and graduates, through Bridge to Industry productions, placement opportunities, and training sessions reaching over 550 students in total. The School has also built up physical

production capabilities through the Immersive Lab, and housing the StoryFutures LED Volume - which are accessible to students in a variety of ways, and which has also enabled the delivery of four iterations of a new Certificate in Virtual Production. The StoryFutures Academy programme has also played an important role in influencing the NFTS Corporate plan 2023-2028, which outlines NFTS' intention to continue shaping the future of storytelling and promoting teaching excellence through R&D. This will include developing new courses in areas relating to games, virtual and real-time production, immersive storytelling, audio and artificial intelligence to maintain our position at the forefront of moving image storytelling. NFTS will also be amplifying its existing Research and Development work through projects and partnerships with industry.

Royal Holloway, University of London

Through StoryFutures Academy, Royal Holloway has established two new programmes: our undergraduate BA in Video Game Art & Design and our MA in Immersive Storytelling. The former includes collaboration with the NFTS to enable undergraduate students to gain experience on the LED Volume and take their skills in Unreal into Virtual Production environments.

One of the most exciting legacies from the approach to training developed through StoryFutures Academy is the establishment of a Collaborative Doctoral Training Programme in Inclusive AI for Digital Media Inclusion, to be delivered in partnership with University of Surrey from 2024.

This CDT will establish a unique creative industry hub for high-quality training in responsible AI, inclusive design and creative skills, catalysing UK leadership in media inclusion for the whole population. It will draw extensively on the approach to bootcamps, train the trainer and placements developed through StoryFutures Academy, whilst it will also draw on the challenge-led model of our programmes.

The CDT will train a new generation of more than 80 industry-ready PhDs to lead the transformation to responsible AI-enabled inclusive media. This will forge a ground-breaking challenge-led model, co-designed and co-delivered with creative industry and end-user partners to remove significant real-world barriers to media inclusion. Working in multi-disciplinary cohort teams to develop leadership, peer-learning and teamwork, we aim to deliver comprehensive multi-faceted AI solutions combining creative, technical, behavioural, linguistic, social and legal expertise, designed with inclusion for all at their heart.