Boundless Creativity report

July 2021

About Boundless Creativity

Boundless Creativity was set up as a joint research project by UK Research and Innovation's Arts and Humanities Research Council (AHRC), in partnership with the Department for Digital, Culture, Media & Sport (DCMS). The project has examined the role of innovation in shaping cultural experiences during the COVID-19 pandemic and generated a new evidence base to inform the recovery, renewal and future growth of the UK's cultural and creative sectors.

The key aims of Boundless Creativity are as follows:

- Provide new data and real-time intelligence on the impact of COVID-19 across the UK's arts, cultural and creative sectors;
- Investigate the impact of COVID-19 on new technology-enabled distribution platforms and online cultural participation, consumption and user preferences across a range of audience groups;
- Identify how the cultural and creative sectors can innovate through their content and business models to build resilience against future shocks;
- Explore the links between cultural participation and mental health and well-being and how these differ across audience and population groups;
- Recommend specific research and policy interventions to drive engagement with the issues highlighted in this report, including those which will allow the sector to maximise the potential of new digital and immersive technologies in engaging and diversifying audiences.

Between September 2020 and February 2021, the project held a series of roundtable discussions with representatives from across the cultural and creative sectors, under the guidance of an Expert Advisory Panel. The Panel brought together expertise from across the arts, cultural, creative and higher education sectors to discuss key insights and findings and to make recommendations.

Membership of the Expert Advisory Panel

- Lord Mendoza, Commissioner for Cultural Recovery and Renewal (Chair)
- Professor Andrew Thompson CBE, University of Oxford (Chair)
- Dr Joanna Abeyie, Blue Moon
- Maria Balshaw CBE, Director, Tate Arts Museums and Galleries
- John Cassy, Founder and CEO, Factory-42
- Professor Helen Chatterjee, University College London
- Professor Andrew Chitty, UKRI
- Professor Edward Harcourt, AHRC
- Imogen Heap, Recording Artist and Tech Founder
- Dr Chris Michaels, National Gallery
- Neelay Patel, Digital Theatre
- Dr Sara Pepper, University of Cardiff
- Professor Christopher Smith, AHRC
- Dr Jo Twist, UK Interactive Entertainment

List of contributors

- Hasan Bakhshi – Director, Creative Industries Policy and Evidence Centre
- Alex Beard – Royal Opera House CEO
- Professor James Bennett – Royal Holloway University

- Patrick Bradley – Managing Director, Station12
- Nica Burns – Chief Executive, Nimax Theatres
- Craig Chettle – Confetti Institute of Creative Technologies, Nottingham
- Professor Paul Crawford –University of Nottingham
- Michael Eakin – Chief Executive, Liverpool Philharmonic
- Phil Edgar-Jones – Chief Executive, Sky Arts
- Sarah Ellis – Head of Digital Development, Royal Shakespeare Company
- Nadia Fall – Artistic Director, Theatre Royal Stratford East
- Dr Daisy Fancourt – University College London
- Peter Florence – Director, Hay Festival
- Dominic Gray – Projects Director, Opera North
- Cassian Harrison – Senior Vice President of Commissioning and Global Content Services, BBC
- Victoria Hume – Director, Culture, Health and Wellbeing Alliance
- Caroline Jones – Chief Executive, The Story Museum Oxford
- Anthony Lilley – Magic Lantern Productions
- Anna Lowe – Co-founder of Smartify
- Dr Kamal Mahtani – Co-Director of the Centre for Evidence Based Medicine
- Kate Mavor – Chief Executive, English Heritage
- Maddy Mills – Artistic Director, Entelechy Arts
- Caroline Norbury - Creative England, CEO
- Karen O'Brien – Head of Humanities, University of Oxford
- Rene Olivieri – National Lottery Heritage Fund Interim Chair
- Lorna Probert – Producer, Aardman Animation
- Laura Pye – Chief Executive, National Museums Liverpool
- Harman Sagger - Head of Analysis, Arts Heritage and Tourism, DCMS
- Professor Caroline Scarles – University of Surrey
- Lucy Shaw – Head of Partnerships, Oxford Galleries, Libraries and Museums
- Dr Martin Smith – Creative Consultant and AHRC Creative Industries Advisory Group
- Alistair Spalding – Chief Executive and Artistic Director, Sadler's Wells
- Nick Starr – Chief Executive, The Bridge Theatre
- Sean Taylor – Project Director, InGAME
- Dr Stephanie Tierney –University of Oxford
- Professor Ben Walmsley – Director, Centre for Cultural Value
- Jonathan Williams – Deputy Director, British Museum
- Roger Wright – Chief Executive, Britten Pears Arts

Foreword from the Chairs

At the launch of Boundless Creativity, the actress Fiona Shaw described "culture as everything – a way of travelling, even at home". Amidst the restrictions of the past year, it is culture we have fallen back on. Thanks to modern science, vaccines will allow our lives to return to a new normality. But it is culture that has kept us going. Helping us to deal with a weight of solitude. Educating and entertaining. Consoling and comforting. Reminding us of the values that make us human. Boundless Creativity highlights the central role of culture in a flourishing life – before the pandemic, in the midst of it, and in the new normal, whatever form that eventually takes.

In March 2020, the UK's theatres, concert halls, festivals, galleries and museums fell silent. It is testimony to their resilience that they were not silent for long. As Ben Okri says, "it is in crisis when we need the wisdom and perspective of art the most". To be sure, many aspects of our cultural life have suffered the damage and disruptions inflicted by the pandemic. From the visible crisis of venues, to young artists and creatives denied opportunities for work, to redundancies of backstage staff, the cultural sector has had to contend with a public health crisis the likes of which we have not hitherto witnessed in our lifetimes.

But culture has fought back. From the livestreaming of ballet into our living rooms to interactive plays on Zoom, from behind-the-scenes tours of galleries to concerts in Epic's *Fortnite*, culture during the pandemic has flourished in new forms. Amidst the unprecedented cessation of live performance, we have witnessed an equally unprecedented expansion of live streaming, digital offerings and online content. During lockdown games, subscription video on demand, and digital and recorded music have all enjoyed positive revenue and audience growth. New partnerships between the digital and cultural sectors have driven new forms of innovation.

At our launch Mary Beard predicted that "one day, we will look back to these dark and cloudy times as the moment when we really did harness technology to open up the best of what arts and culture have to offer on a wider and grander scale". For this prediction to come true, we must harness the lessons we have learned over the last year. As the virus' threat to our physical health recedes, culture will increasingly serve as the marker for the spiritual health of the nation.

Central to this recovery will be a process of healing from the secondary effects of the virus. Around the world countries opening back up from the pandemic will be engaged in vast natural experiments. Lives as much as livelihoods will be at stake. The cultural and creative industries will be a key tool in reconnecting societies, processing the emotional and psychological trauma of COVID, and emerging from this pandemic as stronger and more cohesive communities.

Boundless Creativity was established by the Arts and Humanities Research Council in partnership with the Department for Digital, Culture, Media & Sport to capture the extraordinary ingenuity and imagination that have marked our cultural life during the pandemic. What is clear from everyone we have spoken to – and from our assembled case studies – is that cultural organisations have adapted and innovated to sustain our national life when we have needed them most.

The government, recognising the importance of these sectors, has provided targeted and unprecedented support during this difficult period. Rapid interventions like the £2 billion Culture Recovery Fund and the £500 million Film & Television Restart Scheme have offered a lifeline to organisations across the country.

Before the pandemic, the creative industries were a sector in which the UK was already leading the world. As one of the fastest growing parts of the UK economy, they contributed £115.9 billion per year

and were growing at more than five times the rate of the overall economy.[1] They also accounted for almost 12% of UK services exports. There is now a practical urgency about gathering research and intelligence, not only to support re-opening but to secure the pathway to longer-term growth. The UK rightly prides itself on the range and quality of its live performance. Its artistic, cultural and creative sectors are also getting more digital savvy too. Looking ahead, how can we make the best of both worlds: the magic of live performance plus all of the learnings from lockdown? Somewhere in that symbiosis the future is to be secured. Drawing on the insights and experiences of many of the UK's leading cultural figures, creative industry experts and digital technology pioneers, our report makes nine key recommendations – for government, for funders of research, and for arts, cultural and creative organisations, and businesses. We believe that, if acted upon, these recommendations will make a powerful contribution to the recovery of UK culture and to the broader healing process of the country as we emerge from lockdown.

This report could not have been written without the input from our distinguished Expert Advisory Panel as well as the many contributors to the events we held. We are grateful for their contributions. What emerged from our conversations is the huge economic potential of the UK's powerhouse creative industries, alongside the intrinsic value of culture for our civic and community life. We know that in 2021 we still face many challenges. However, as we turn towards a future with fewer restrictions, let us be sure to put culture at the heart of the UK's national life.

Lord Mendoza
Professor Andrew Thompson CBE

---

[1] DCMS (2019, Updated 19th February 2021) 'Economics Estimates' DCMS Economic Estimates 2019

Summary of recommendations

Taken together, our nine recommendations form a post-pandemic pathway to recovery and sustainable growth for the cultural and creative sectors. They capitalise on the new ways of working that have characterised cultural life during COVID-19 and the shared commitment of the Arts and Humanities Research Council and the Department of Digital, Culture, Media and Sport to work more closely together for the benefit of cultural organisations and creative technology. Our recommendations will enable cultural organisations and creative businesses – whether relying on new technologies or on more traditional modes of delivery - to come back better and stronger.

1. **Support New Cross-Sectoral Collaborative R&D:** The creative industries are not usually regarded as a typical R&D sector. That is changing, however. Where creative meets "tech" is the place where great cultural and economic value is going to be derived in the next twenty years. Hence our first and in many ways foundational recommendation is for the development of new Boundless Creativity funding calls, devised by AHRC in collaboration with DCMS, in order to support thinking on the UK creative and cultural sector's recovery from the pandemic and help to reap its benefits. These new funding calls would be launched, subject to the spending review, successively over the next 24 months to target the specified research fields highlighted in the recommendations below.

2. **Reach New Global Audiences**: A new collaboration between AHRC and DCMS to understand and unlock the potential of reaching new global audiences digitally, starting with a survey of the innovative ways the sector has engaged, and begun to monetise their engagement with, international audiences. This will be accompanied by a call to arts funding agencies for collaborative research to increase understanding of how digital content for international audiences can complement or support international touring once resumed.

3. **Reshape the Policy Environment to invigorate Creative R&D:** DCMS will work with the HMRC and the cultural sector to revisit the definition of R&D for the creative industries, supported by research produced by the AHRC Creative Industries Policy & Evidence Centre to understand how R&D can be bolstered within the cultural and creative industries, to quantify the value of creative R&D, and offer workable policy solutions. We will also seek to learn from Festival UK* 2022 to understand the effectiveness of R&D in fostering creativity and innovation between cross-sector organisations.

4. **Broaden Digital Access for Producers and Consumers**: AHRC will galvanise new research on the barriers to entry into the digital market faced by freelance artists and smaller creative organisations, and will work with DCMS to look into framing new policy interventions that level up commercial opportunities for streaming beyond larger institutions and beyond London. We will incentivise the bigger players to make their platforms open source and / or develop a shared platform to give smaller cultural practitioners more control over their content and how they profit from it.

5. **Increase data sharing:** New research will be initiated to increase our understanding of how innovative digital content can reduce barriers to audience participation, generate new income streams, support freelance artists and smaller organisations, and retain copyright for producers.

6. **Support Future Live Performance**: AHRC will distil the insights and intelligence from its rapid response COVID-19 research, identifying the gaps in our knowledge about COVID-secure environments for live cultural experiences. This research will inform future policy interventions to create a sustainable model for the sector, in tune with the new normal. 2022 as a year of celebration focused on culture and sport, with three showstopper events across

the UK – Birmingham Commonwealth Games, The Queen's Platinum Jubilee, and Festival UK* 2022 – will be an opportunity to support jobs and provide a platform for the UK to shine on a global stage.

7. **Build a Strong, Resilient and Diverse Digital Skills Base:** Building on Arts Council England's digital maturity index and tech champions network, DCMS will continue to invest in schemes such as the National Skills Fund, Digital Skills Partnerships, and Digital Skills Bootcamps. This will ensure the whole cultural and creative sector can embrace digital transformation and build a workforce with the necessary skills. AHRC will work with DCMS and other arts funding agencies (such as Arts Council England) to look at the digital skills gaps in the UK cultural and creative sector, with a particular focus on regional growth and interconnectivity and the demands of specific and diverse demographics.

8. **Cement the link between cultural access and health and well-being:** AHRC and other partners, with the support of DCMS, will launch a new joint research programme focusing not just on mental health but health generally. It will work with other relevant networks (e.g. the National Academy of Social Prescribing) to identify the local assets, partnerships and delivery mechanisms best suited to a national roll-out of arts-and-culture-based policy to redress the health inequalities that have been amplified by the pandemic.

9. **Diversify and Nurture Talent**: Arts funding agencies should undertake a collaborative project looking at the impact of COVID-19 on new entrants to the cultural and creative sectors' workforce, and at effective interventions to reverse the labour market scarring and to bring back talent recently lost.

The key insights gained from Boundless Creativity and which inform our recommendations

The pandemic has changed how we lead our lives. On its eve, transformative digital technologies were already turning producers into consumers with platforms like Instagram and YouTube. But the pandemic itself has accelerated these advances further. We have seen an unprecedented expansion of online offerings. The demographics of change merit particular attention. In the digital arena, youth and engagement are positively correlated. Twice as high a percentage of the under-45's have engaged in cultural activities online during the lockdown compared to the over-45's.[2] Not only an attractive consumer group, they are more likely to guide us towards future innovations given their higher levels of involvement in crowdsourcing, gaming, and co-creator endeavours. Understanding the demographics of new technology will be vital to providing satisfying digital cultural experiences.

Over the last year many cultural organisations expanded their digital offerings. The evidence we have gathered shows digital cultural consumption over lockdown increased for everyone, though problems remain of unequal access to broadband and unequal digital literacy. Traditional consumption has been among the beneficiaries. "We have all gone box-set crazy". Families in particular have come together around TV in a way they hadn't perhaps for a generation. The last twelve months have also ushered in other changes in audience preference and consumer behaviour. Watching filmed performances, looking at art online, Zoom readings of plays, pop stars turned avatars in video games – museums, galleries, theatres, and opera houses have all diversified what they offer, while artists have entered the "metaverse" of gaming. People have gained access to things they never had before, and cultural organisations reached more niche audiences, sometimes in unexpected places.

The pandemic has, moreover, converted many casual and marginal users to more intensive use of digital technology. A recent report by the *Economist* revealed that 25 million people in the UK visited a cultural site online or attended a virtual event in the first eight months of the pandemic.[3] Two-thirds of Britons now think it is possible to have a meaningful cultural experience online. Premium films have been released direct to home audiences. Online multiplayer video games have mushroomed. Younger audiences have found new forms of digital culture that connect them socially, giving them greater agency as creators as well as consumers of content. The reach of Sky Arts, as a free to air proposition, has tripled. Cultural organisations have harnessed digital technology to reach audiences and visitors who did not previously feel culture and heritage had anything to offer them.

But alongside this digital acceleration there is the onset of digital fatigue. Not all forms of cultural production give satisfaction when translated online. Sometimes they are not felt to be worth paying for, or worth consuming at all. The digital is not a substitute for live performance. Rather the evidence we have gathered suggests the internet is serving to sharpen our appetite for physical cultural experiences. How will all of this play out? When restrictions relax, will digital offerings revert to being niche experiences? Will user-generated content continue to grow or simply subside? Many of the people we spoke to envisage a future hybrid model where digital and physical components complement each other and are mutually beneficial.

---

[2] Boundless Creativity benefited from access to the latest data of The Audience Agency's COVID-19 Cultural Participation Monitor as well as new data from the AHRDC/NESTA Policy and Evidence Centre.
[3]*The Economist*, (2020) ['The Economics of Creativity: Exploring the economic importance of Creative Industries and the significant shifts that have taken place in 2020'](#).

The creation of digital content demands more than migrating existing content online. Content often needs to be adapted, or entirely rethought, for digital platforms. During the pandemic many cultural organisations have developed a deeper understanding of the challenges of making their live performances truly accessible. Online experiences work best when they have intimacy and authenticity. Telling global stories to growing global digital audiences has to be balanced with offering local benefits as a cultural venue. Venues have proven themselves capable of responding creatively and with great agility. But a longer-term transition to a hybrid offer that speaks to global and local audiences will take time.

Finally, we turn to the link between cultural participation and well-being. The negative impacts on mental health of COVID-19 have been significant, as *Lancet Psychiatry* has recently shown.[4] At the same time the pandemic has affirmed that engagement with culture makes for healthy and flourishing lives. New evidence is emerging of the buffering effects of creative and cultural activity on loneliness, anxiety and depression, including for the most vulnerable parts of the population. How do we now make sure these vulnerable groups have digital access, so as to bring the benefits of cultural participation where they are arguably most needed? How do we improve digital offerings, so some of the pleasures of place-based, face-to-face contact can be recreated online?

We spoke to a wide range of representatives from the creative and cultural sectors. They ranged across the UK's regions from many of the UK's most recognised cultural institutions, through to dynamic, newly emerging creative and digital SMEs, and a rich tapestry of community-based arts groups. For many of those we spoke to, virtual reality and reality itself are expected to evolve alongside each other; performance to live audiences to be integrated with streaming to global ones; and online experimentation to accompany buildings-based experiences. It may not yet be possible to apprehend exactly what the UK's arts, cultural and creative sectors will look like in a decade's time. But amidst a quiet revolution in data science and digital technology, there is a widely shared view – conveyed by the case studies at the end of this report – that change is in the air and their future will not simply be an extrapolation from their past.

---

[4] Holmes, E.A. et al (2020) 'Multidisciplinary research priorities for the Covid-19 pandemic: A call for action for mental health science', *Lancet Psychiatry 7*, pp. 547-560.

Boundless Creativity case studies

1. Broadening access to digital platforms

In the first twelve weeks of lockdown, more than 15,000 theatrical performances were cancelled with a loss of more than £303 million in box office revenue. The Association of British Orchestras estimates that over £6 million was being lost by its members each month because of cancelled performances. As a consequence, digital content production boomed during the pandemic as traditionally physical modes of production shifted in response to restrictions. Digital content production can broadly be categorised into three types:

- Pre-recorded content being streamed, either through bespoke platforms or existing streaming services;
- Live intra-media performances making use of new popular technology like Zoom and occasionally including interactive elements;
- Live streaming entirely new content, either free to view or to paying audiences.

Initially, the biggest organisations who had already invested resources in digital content production had a considerable advantage because they had a library of pre-recorded content to fall back on. Smaller organisations by contrast needed to invest in both technology and skills, and rarely had established content libraries to rely on. Despite this challenge, many did adapt, in some cases incorporating platforms like Zoom into innovative new performances. Many festivals also successfully pivoted to an online offering, including the Hay Festival, Edinburgh Fringe and Notting Hill Carnival. New uses of platforms emerged, such as the video game Fortnite, which was used by the Manchester International Festival to reach over a million users at virtual events. Fortnite in particular has shown the potential of turning digital gaming worlds into free performance spaces, accessible to audiences in the millions. Luxury fashion brands like Balenciaga and Burberry unveiled new collections in video games or via Twitch. Hip hop artist Travis Scott streamed a ten-minute gig in Fortnite to 12 million viewers. Collaborations using these platforms have huge potential. Research funding for experimental engagement, including opportunities to bring in expert curators in residence with industrial experience, could dramatically accelerate digital innovation. Research also has a role to play here in understanding the barriers to entry and the ongoing challenges faced by artists and organisations of every size, and in spreading best practice and sharing understanding between artists, through toolkits and other resources.

Case study: The Creative Passport

The Creative Passport is an identity database, established in response to the need for people operating in the music industry to have greater control over their metadata. The platform allows users to generate personalised creative passports, giving artists the autonomy to manage and organise their metadata. This metadata can be pushed out to all major music streaming platforms, offering artists a simple way to have greater control over their data.

From there, it combines a search engine for researching and networking with an opportunities portal where anyone from an independent filmmaker looking to commission a soundtrack to a regional festival looking for artists can connect and collaborate in a safe, fair and transparent ecosystem.

> **Case study: The Tempest: live, interactive and in your living room**
>
> *The Tempest was an intramedia performance produced by Creation Theatre. With funding support from AHRC, Pascale Aebischer and Rachael Nicholas from the University of Exeter developed a [digital toolkit](#) based on Creation Theatre's experiences to help other companies transition from physical performances to digital ones.*
>
> *The Tempest was a sell-out performance. Adapting the show for Zoom, charging per-device for tickets, and significantly reducing overheads allowed Creation Theatre to pay freelancers Equity wages and even make a modest surplus during COVID-19.*
>
> *The Zoom production reached an estimated audience of 2800 across 17 performances and attracted audiences from a wider geographical area than the 2019 live performance. Audiences reported paying £20 per device represented good value for money and many indicated a willingness to continue to engage with, and pay for, Zoom theatre experiences. Audiences also distinguished the experience from recorded theatre and placed extra value on the fact that the production was created specifically to be watched online, that it was live, and they were able to participate.*
>
> *This collaboration highlights the value of partnership between academia and the live performance sector – the partnership with the University of Exeter enabled Creation Theatre's experiences to be captured and shared with other practitioners, ensuring best practice for live performance could be shared.*

2. Reaching and understanding audiences anywhere

The shift to digital opens up the opportunity for content producers traditionally reliant on physical spaces to access new online audiences. The imposition of restrictions around the globe confined people to their homes and provided a new captive audience with a seemingly insatiable appetite for new content. To benefit from this shift the upfront costs can be high. Boundless Creativity participants reported mixed results about the impact streaming content had on their finances. The majority said it could not provide a sustainable alternative to live performance as the investment was significant and returns were not as high. Some, such as the Hay Festival, chose to make content free to view and to invite donations. At Hay, around 1 in 500 people watching donated, allowing the Festival to raise around $250,000.[5] Whilst significantly lower than the Festival's usual revenue, this was nonetheless welcome in a year when revenues were otherwise forecast to be virtually non-existent. By contrast, others such as the Old Vic chose to offer tiered tickets as an alternative to donations. For those that pivoted to digital over the last year, these revenue streams have been vital.

Many organisations spoke of a hybrid future where live performances include a digital offer, supplementing rather than replace physical performances. Indeed, some organisations like the Liverpool Philharmonic, and Wise Children theatre company, shifted to this model as a consequence of repeated lockdowns. There were some cases where digital adaptations exceeded expectations: notably the Maltings Theatre in St Albans, whose adaptation of Twelfth Night for Zoom was screened to an audience 40% larger than the theatre auditorium. There were also shows designed specifically for online media that proved that platforms like Zoom can be viable performance spaces in their own right. For instance, the Evidence Chamber is an interactive show in partnership with the Leverhulme

---

[5] These details and figures have been provided by the Hay Festival.

Centre for Forensic Science. A small number of attendees act as jurors and pronounce a verdict on an actor's guilt or innocence. This had a limited run that secured critical acclaim.

Case study: The Old Vic in Camera

The Old Vic in London chose to produce new content using socially distanced performances. Beginning with Duncan Macmillan's LUNGS with Claire Foy and Matt Smith and followed by a world premiere of Stephen Beresford's Three Kings, these shows were streamed live from the Old Vic stage with the empty auditorium as a backdrop. 'In Camera' productions were planned up to March 2021. They aimed to replicate their existing audience size of up to 1,000 people per night, with a ticket pricing system similar to physical tiered seating.

LUNGS and Three Kings generated 25,000 paid-for views and yielded £650,000 in total. But it is worth noting that this is around a third of what commercially viable shows at the Old Vic would expect to take. Viewers came from over 60 countries, and their age profile was broad with no particular skew towards younger or older age groups. This allowed Old Vic to continue to employ freelancers, maintain a connection with audiences, and generate an important revenue stream.

More research is required around the financial viability of online performances and their revenue generating potential. Boundless Creativity has simply scratched the surface. Much of the data needed is held by individual content providers and is likely to be commercially sensitive. Nevertheless, there would be merit in commissioning research that seeks to identify the kind of content audiences are prepared to pay for, as well as research to help share the most commercially successful models. There is much that could be learned from cross-sector analysis here, given both TV and video game producers have been exploring the relationship between international audiences and paid digital content for some time.

In addition to the financial aspects of digitised performance, there is more work to be done to understand changes to audiences arising from new modes of engagement. It is not simply old audiences switching to access online content: early evidence suggests cultural providers are reaching a richer and more diverse audience than traditional physical performances. The COVID-19 Cultural Participation Monitor, led by the Centre for Cultural Value, undertook a survey of around 7,000 people in October 2020 and found that there are significant differences in cultural engagement across regions and ethnicities.[6] Critically, Black and Asian audiences are engaging with culture online more, whereas traditional audiences are engaging less. However, these findings merely scratch the surface. More work is needed to build a detailed understanding of how diverse audiences engage with new forms of content and draw meaning from them.

Whilst the UK cultural industries have long established audience segmentation models, our understanding of global audiences is not as sufficiently refined. There is therefore a substantial opportunity for new research in terms of building an understanding of where global audiences are, their preferences, and sharing best practice between cultural providers about how to reach them. Many providers throughout lockdown have kept track of the countries where their content has been viewed, but no work to date has been done to collate this information. Equally, more work is needed about how to reach global audiences through digital productions. Boundless Creativity participants: for some, their online audience had predominantly consisted of their loyal local following, whereas others like the National Theatre had secured a truly global audience. Understanding how cost,

---

[6] *The Audience Agency* (2020), ['Covid-19 Cultural Participation Monitor'](#)

reputation and offer impacts on global audiences and the kind of content they consume (and are willing to pay for) would be a valuable research task that could enable more content producers to take advantage of 'anywhere audiences'.

Case study: National Theatre at Home

The National Theatre was one of the earliest to establish an online alternative through its NT at Home programme, launched in April 2020 in response to the closure of theatres due to COVID-19. Initially, this consisted of four productions released weekly over a four-week period. These were free to watch on YouTube. The team felt this was the optimum way to distribute content, ensuring it was freely available to audiences around the world, with the benefit of a straightforward rights clearance process.

By the end of the initial programme in July 2020, the National Theatre had released 17 productions over 16 weeks, showcasing the diversity of programming from the National and a host of other leading theatre companies such as the Donmar Warehouse, Nottingham Playhouse, the Bridge Theatre and the Young Vic. These productions received 15 million views and reached nine million households across 173 countries. The National Theatre notes it was in a privileged position because it had an existing catalogue of high-quality recorded material which cost hundreds of thousands of pounds to produce. Had they needed to cover the costs of these captures; the economics would have looked very different.

The National Theatre has now supplemented its at home offer with a bespoke streaming service for £9.99 a month or £99.99 a year, offering access to a library of pre-recorded content as well as new content uploaded monthly.

Case study: Sky Arts

TV has been one medium which has continued to perform strongly throughout the pandemic. Sky Arts launched on Freeview and Freesat as a free-to-air service, opening its content up to a huge new audience. Their reach has tripled, and they have shown their first ever series topping a million viewers.

Beyond the mainstream audience for arts and culture, Sky Arts has also started more proactive engagement online, speaking directly to online fan communities and exploring how to make content that moves people from spectators to participants in the arts. Portrait Artist of the Week was a hugely successful initiative on Facebook, which offered a 4-hour real time painting class livestreamed. This ended up reaching 4.6 million people and generating 20,000 new paintings and portraits in its first four weeks.[7]

---

3. Re-invigorating creative research and development

R&D is the engine driving forward growth in the creative industries – yet one not exploited to its full potential. New immersive technologies of virtual, augmented and mixed reality are already changing the way audiences experience the world around them. The £39 million AHRC Audience of the Future Fund has brought together creative businesses, research, and technology experts to create striking new experiences that captivate the public imagination and deepen our understanding of these cutting-edge technologies.

---

[7] This data has been provided by Sky Arts to support the case study.

Case study: The Audience of the Future Demonstrator Programme

The Audience of the Future Demonstrator projects are part of the UKRI Industrial Strategy Challenge Fund. This programme supports UK storytellers to create engaging immersive experiences. The Demonstrators are industry-led consortia in the creative industries, testing these new experiences with audiences. All of them have been impacted by the pandemic and have had to pivot their projects in response.

1. Led by the Royal Shakespeare Company, a consortium of 15 specialist organisations, leading universities and immersive technology pioneers have pooled their expertise to discover the future of live performance. Combining virtual reality, mixed reality and augmented reality with live performance, they seek to uncover future opportunities of real-time immersive performance to change the way audiences both in-person and remotely experience live performance by making it more immersive.

2. Leading creative content studio Factory42 has partnered with the Natural History Museum, Science Museum Group, University of Exeter and others to create Dinosaurs and Robots. Combining mixed reality technology with immersive theatre, two separate adventure game visitor experiences create multi-sensory and interactive worlds for visitors to the Nature History Museum and Science Museum.

3. The WEAVR esports consortium has created a new technology platform which uses live and historic data to create personalised mixed-reality experiences for fans. It incorporates immersive experiences that stretch cross virtual and physical spaces, multiple displays, mobile devices, VR telepresence and augmented reality overlays to allow viewers to move seamlessly between the live arena, virtual game worlds and augmented living rooms.

4. The Big Fix Up is an augmented reality project led by Tiny Rebel Games, Potato, Sugar Creative and Aardman Animation. This new immersive experience brings classic characters Wallace & Gromit alive in a new way for audiences while also creating a new platform for storytelling.

Digital innovation has thrived in lockdown as performers have sought alternative means of reaching audiences. However, much of this experimentation has been small scale, additive work, usually funded by organisations or performers themselves (with philanthropic donations to supplement in rare cases). Whilst many of these interventions have been reactive and designed to respond specifically to lockdown circumstances, almost all of them could have longevity beyond the pandemic. Throughout Boundless Creativity, several participants argued that the current definitions of Research and Development used by governments worldwide have long excluded the arts, humanities and creative industries. Consequently, much of the R&D activity which happens within the creative industries does not qualify for targeted support that facilitates similar innovation in other industries. This challenge proved particularly significant during the pandemic, where organisations struggled to mobilise additional resource needed to innovate in response to COVID-19. Those organisations who successfully adapted to digital modes of transmission tended to fall into two categories: either they were large organisations with reserves that could be re-directed and existing philanthropic relationships that could be leveraged, or they were very small organisations who had the agility to innovate in ways that were not resource intensive. This is symptomatic of innovation within the sector in normal circumstances: too few creative R&D projects can progress because of a lack of funding. Emerging from Boundless Creativity is a clear need to re-assess how we measure, understand and assess value within the cultural sector, with a focus on the implications of this for R&D. This will support the development of more appropriate financial mechanisms that can drive forward growth.

Case study: Working Group on Creative R&D

Led by Dr Chris Michaels at the National Gallery, a new Working Group on Creative R&D has formed from a partnership between the National Gallery, the Serpentine, Royal Shakespeare Company, Watershed Bristol, Royal Opera House, Manchester International Festival, Young Vic and the National Theatre. The Working Group is seeking to build a new national network that supports the practice of and measurement of the value from digital innovation and R&D within the cultural and creative sector. Through research and collaboration, the Working Group is seeking to build a stronger understanding of R&D within the creative and cultural sectors and what changes might be required to drive forward growth.

4. Catalysing new collaborations

Prior to the pandemic, a number of collaborative partnerships were already in existence – including several major consortia supported by AHRC's Creative Clusters and Audience of the Future programmes – but the number and scale of these partnerships will need to increase considerably to ensure a sustainable future for the sector. We heard that many cultural content providers now envision a hybrid future for performance, which blends live and digital elements. This is a spectrum of activity, ranging from straightforward livestreaming to complex immersive experiences blending virtual and physical reality. To deliver the step change needed to ensure the cultural sector is resilient into the future, such partnerships will need to become the norm rather than the exception, bridging the gap between creative and technical expertise. This will require new funding mechanisms that are more agile and flexible to meet the needs of commercial partners and enable greater experimentation. It will be particularly important to ensure these are accessible to smaller cultural providers, whilst retaining scope for bigger opportunities for those projects with the largest potential.

Case study: Current, Rising

Current, Rising is a 15-minute hyper reality opera experience, combining virtual reality with a multisensory set and blending historic stagecraft with cutting-edge technology. Developed as part of the Audience of the Future Demonstrators, it invites audiences to step into an immersive, atmospheric virtual world and experience a dream-like journey carried musically by a poem layered in song. Guests wear a backpack and VR headset and navigate through the virtual space created by a collaboration between the Royal Opera House's Audience Labs, award-winning Figment Productions and Royal Holloway, University of London.

New collaborations bring benefits for both sides. As part of the Creative Industries Sector Deal, the Government established a new Creative Industries Trade and Investment Board (CITIB) to increase creative exports in goods and services combined by 50% between 2018 and 2023, and to significantly increase the number of exporting creative businesses across the UK. International collaborations, including with academic partners who bring cross-cultural understanding and expertise, can help drive growth in exports and create new opportunities for collaboration. For some productions that pivoted to digital, this was a chance to re-imagine their offer completely. The Sydney Global Fringe, for instance, showed some online productions in partnership with the Stockholm Fringe, offering access to both audiences. As creative services and cultural assets can be exported without any physical movement, the industries are in a strong position to use new digital services and content created in the pandemic as an export opportunity. New live streaming platforms for theatres, for instance, open up global audiences and cultural content creators are likely to need support to access these in the

most effective way possible. CITIB should consider the implications of this development and how to best capitalise on this.

Case study: Shaun the Sheep in Shanghai

In collaboration with the University of Liverpool and the Shanghai Theatre Academy, Aardman Animation are adapting Shaun the Sheep for a global audience in Shanghai. The project is transforming Aardman's high-end animation work from a linear and pre-rendered end-user product into a non-linear, real-time, responsive and spatially immersive experience. By linking audience understanding, animation and games technology, the project will deliver a new audience-focussed, spatially immersive and responsive approach to storytelling. This would be the first "mixed reality" experience designed specifically for families with no headsets, no gloves and no mobile phones. This new "responsive cinema" approach is a scalable concept that is relevant to a wide range of companies and audiences, whilst the stories being told require the translation of British humour and Aardman's distinctive style for a Chinese audience.

---

5. Supporting future live performance and experience

Whilst digital collaborations will be crucial to the cultural sector's long-term growth, live performance will nevertheless remain a core component – particularly for those who rely most on physical experience, such as festivals, museums and galleries. We heard numerous examples during Boundless Creativity of remarkable efforts to re-open safely between lockdowns. From socially distanced performances and audiences to temperature testing and health questionnaires, live performance adapted to allow the show to go on. However, the numbers attending were not sustainable in the long term. Occupancy was generally between 20-50% in theatres which meant most performances barely broke even, and some were loss-making. In museums and galleries, the visitor numbers were at 10-25% of pre-pandemic levels in some cases. The impact of this has been devastating for a sector so reliant on physical footfall and visitor secondary spend. The complete cessation of international tourism has also been challenging for the cultural sector, particularly as international visitors represent 9% of cultural visitors overall but over 50% for our national institutions.[8]

Case study: National Museums Liverpool

National Museums Liverpool is one of the largest collections of museums and galleries in the UK, consisting of a portfolio of eight wide ranging museums and galleries. National Museums Liverpool is a nationally funded museum that usually generates up to 40% of its revenue from secondary spend in cafes, shops, events, venue hire and donations. The museums and galleries collectively would usually expect around four million visitors per year, but this year are likely to see just 400,000. They anticipate it will take 3-4 years to return to their pre-pandemic visitor figure, particularly as it will take time for international tourism to resume.

---

[8] This data was supplied by participants at symposiums held between September 2020 and February 2021.

Case Study: Nimax Theatre

Nimax Theatre operates six venues in the heart of London's West End. They took the decision to re-open as soon as possible, even though this would be economically unviable, to make a contribution to cost recovery and help support the employment of staff. They invested in a seating algorithm to maximise ticket allocations within social distancing guidelines, which boosted capacity from 30% to 50%. 48 hours before arrival, guests completed a health questionnaire before tickets were issued. All ticketing was contactless with controlled entrance times to ensure no queueing. Audience demand was high, with most Nimax shows selling out within hours of tickets becoming available.

Most organisations told us it was only possible to re-open because of the support of the Culture Recovery Fund. Nevertheless, only a very small number of performances were able to go ahead between lockdowns – the scale of most major productions and the number of people involved meant it was impossible to comply with social distancing guidelines and open safely.

In 2021, the anticipated roll out of vaccination, advances in testing and the impact of new treatments which change the risk associated with COVID-19 are making live performances once again potentially viable. Many Boundless Creativity attendees anticipate there will be a surge in demand for live performance and festivals once restrictions start to lift. At the time of writing it is still impossible to predict when exactly this will be. There is a desire for a large-scale communications campaign, led by the sector and supported by Government, to increase public confidence in venues once they are safe.

Case study: The Royal Opera House

The Royal Opera House faced considerable challenges without live performance: it normally runs on a break even rate of 96% occupancy and is the largest employer of artists in Europe with 350 on the payroll. Opera is the antithesis of an art form that works with social distancing, with 100 people in the orchestra pit, 100 on stage and 100 people front and back of house. Their digital capabilities developed very rapidly in the early months of the pandemic as they accelerated two years of planned work into the space of three weeks to bring a pay per view capability online.

This started as informal activity but grew into digital performances live streamed from the House stage to audiences at home. They have experimented with a number of pricing models, ranging from free to view to ticketed performances and a subscription for access to a content library. Once it was possible to reopen, the Royal Opera House planned to welcome physical audiences back whilst continuing to stream shows online simultaneously. When the re-imposition of restrictions made it impossible to continue with physical performances, the Royal Opera House pivoted and offered streams of different pre-recorded shows for limited time periods.

6. Building a strong, diverse and resilient sector

The cultural sector has had to digitally upskill at a rapid pace in recent months, and there is much that both sectors can learn from each other. Broadening and diversifying audiences relies on stories and content that are conceived by diverse creators. Digital platforms and new collaborations should bring exposure to new global audiences– but this requires ongoing investment in a diverse creative workforce. Boundless Creativity participants, particularly in film and TV, report that hybrid working has allowed many more people access to the gatekeepers of programming and in turn allowed those people to meet many more cultural practitioners than would be possible face to face, which has opened up a more diverse pool of participants for conversations. It is important these benefits are not lost.

> **Case study: The Notting Hill Carnival**
>
> *The Notting Hill Carnival is ordinarily the world's second-biggest street festival, with 40,000 volunteers and more than a million visitors each year. It includes more than 25,000 performers. When it became apparent it would be impossible to host Carnival as normal, the team took the decision to take it online, with a greater focus on showing people around the world what Carnival is about and what it has to offer, in greater detail than would be possible in person. Carnival offered pre-recorded and live content across four channels over the August bank holiday weekend, including performances but also films celebrating culture, music, dance and food. These were all live streamed free to audiences. Spotify partnered with Carnival, offering playlists curated by organisers and podcasts about Carnival history and issues facing the black British community.*

The creative sector was among the most resilient during the pandemic because many had already adopted digital working practices. The world of work across all sectors will undoubtedly look different when lockdown is lifted. Business models have adapted in response to the need for online collaboration and this has facilitated greater remote working. Creative companies who attended Boundless Creativity reported a greater willingness to hire new staff based remotely, given the majority of time in the future would likely be spent online. There is much to learn, for instance, from the gaming industry due to earlier substantial investment in cloud-based development tools and asynchronous development processes. Some of these learnings may be relevant for other industries, but there is currently no central hub that is accessible to cultural and creative companies with collated learning and best practice examples. This is something the research community should look to address.

7. Access, health and well-being

Whilst the restorative effects of culture have long been anecdotally discussed, it is only in recent years that the academic community has started to robustly analyse the connection and seek to demonstrate the value of creativity beyond the economic. According to a recent report produced for the World Health Organisation, access to culture can both prevent ill health, promote good health and assist with the management and treatment of ongoing illness.[9]

Boundless Creativity participants reported that the pandemic has disproportionately impacted the most vulnerable members of society, with the worst impacts felt by economically disadvantaged communities in culturally asset-poor areas. Academic research has sought to monitor these trends and draw lessons from effective interventions to inform future service design. Cultural and creative interventions seeking to improve health and wellbeing fall into two broad categories. The first is wellbeing interventions which have been adapted from existing programmes ordinarily carried out in a face-to-face context. The second is wellbeing interventions designed to specifically respond to the pandemic, often targeting isolation and mild to moderate mental health conditions like depression or anxiety. Data from multiple sources show that people were participating more than ever in arts and cultural activities: for instance, the COVID-19 social study collected nearly one million surveys from over 72,000 participants and found one in five reported engaging more with the arts. Research carried

---

[9] D, Fancourt; S, Finn, (2019) ['What is the evidence on the role of the arts in improving health and well-being? A scoping review'](), *Health Evidence synthesis report 67*

out throughout the pandemic suggests that the most successful initiatives created an online community and offered opportunities for sharing creativity.

Moreover, new and unexpected partnerships emerged during the pandemic. Creative health partnerships leveraged the power of the arts, natural and community assets in collaboration with health, social and care and third sector services. Boundless Creativity participants expressed concern about the continuing financial viability of many small arts organisations and charities, who are operating on small, insecure budgets but have deep knowledge of the communities they are embedded within. They form a vital part of the research infrastructure in this space and sustainable funding streams are critical to their continuing operations.

Case study: Entelechy Arts

Entelechy Arts is a charity based in Lewisham, South East London which produces projects which powerfully test the boundaries between art, creativity, care, wellbeing and community. We believe in the creative power of the individual, and that everyone should have the opportunity to contribute to the cultural life of their local community. This richness in sharing stories and experiences of those who can often feel underrepresented, encourages stronger communities, changes perceptions, and ultimately helps people live healthier, happier and more connected lives.

During the pandemic, Entelechy Arts shifted its provision for its communities including the elderly, those living with complex disabilities, and residents of care homes, to phone, post and some digital. This required staff to provide vital additional access support and help their communities with the right technology so they could participate. The programme was done in consultation with and co-owned by their communities, ensuring it was impactful and enjoyable. They started a weekly radio show with the Albany Theatre in Deptford, hosted by some of their members, who also produce the content for it. They also worked with artists to produce regular creative phone call clusters including poetry, singing and making, delivered workshops via zoom, plus sending out written and sonic letters and 250 creative boxes for people in isolation. They recently sent out a new box based around sound and vibration for people living with dementia, visual impairments or complex disabilities. Maximising the confidence and agency of their participants was critical, as some had not left home for six months and this was one of their few opportunities to engage with the outside world.

In the future, Entelechy Arts will be learning from these experiences and considering hybrid ways of working which incorporate some of the remote programmes developed in lockdown to reach communities who struggle to attend in-person creative activities.

Case study: Eno Breathe

A partnership between the ENO and Imperial College Healthcare NHS Trust, ENO Breathe is an integrated social prescribing programme of singing, breathing and wellbeing, breaking new ground as the first of its kind created to provide crucial support for people recovering from COVID-19.

The programme's combined approach brings together musical and medical expertise to combat the increasing need for support for those experiencing post-COVID symptoms. Building on techniques used by opera singers, the holistic online programme provides patients with tools for the self-management of breathlessness and associated anxiety. ENO Breathe uses weekly group online sessions and digital resources to empower participants with tools and techniques to help them focus constructively on their breathing. The programme focuses on breathing retraining through singing, and uses lullabies as its musical starting point.

Following a successful six-week trial in autumn 2020, the programme was rolled out nationally with NHS Trusts across the country at the end of January 2021. Following its national rollout, the programme received national and international press and media coverage, including ITV News at 10, BBC News, CBS (USA), NBC (USA), the New York Times, The Telegraph and many more. Currently the ENO Breathe programme works with over 30 NHS Trust partners across England and continues to expand, aiming to reach 1,000 patients by the autumn. The ENO and Imperial are continuing to build the evidence base for the programme, with a randomised control trial commencing in May, in partnership with the research team at Imperial College.

Beyond the pandemic, culture will continue to have a critical role to play in our national recovery. There is no greater unifying force. The value and power of many innovations seen during the pandemic lie in their potential to transform access – particularly through partnerships. Many of this year's Edinburgh Fringe online performances aired on a 'pay what you feel' or donation basis. English Heritage has gone viral on TikTok and livestreamed the summer solstice to five million people. Sadler's Wells has launched free, daily dance classes and workshops online for all ages, taught by some of the best artists in the industry. As cultural and creative organisations emerge from the pandemic, thanks to the resilience, creativity and hard graft of the thousands of individuals that make up this sector, as well as significant government investment through the Culture Recovery Fund, these new ways of engaging audiences and inspiring everyone's creativity point to a brave new future.

Overview of Boundless Creativity roundtables

First Symposium: Thinking Different Digitally - 9 September 2020

Second Symposium: Live Events and Lockdown - 17 November 2020

Third Symposium: Business Models Old and New - 1 December 2020

Fourth Symposium: Culture, Health and Wellbeing - 25 January 2021

Fifth Symposium: Future Research Priorities - 17 February 2021

Further detail on our recommendations

Recommendation 1: Support New Cross-Sectoral Collaborative R&D.

The pandemic has accelerated cultural content providers' reliance on digital technologies and brokered new partnerships between digital tech firms and the cultural sector. However, these partnerships are still more the exception than the rule. We note the innovative collaborations of cultural, STEM, educational and corporate partners in the planning for Festival UK* 2022. There is however scope to do more to ensure smaller providers – creative-tech SMEs companies, and smaller arts and cultural organizations - are not left out in the cold. Since many creative-tech companies exist outside London and the South East and smaller arts and cultural organisations are, by definition, geographically spread throughout the country, addressing this challenge would not only benefit the national economy overall but contribute significantly to levelling it up. Future research funding should build on the success of AHRC's *Audience of the Future* and *Creative Clusters* programmes, supporting innovative collaborations between digital tech providers and the cultural sector and more actively involving creative practitioners in the very process of research.

Action
Development of new Boundless Creativity funding calls, subject to the spending review, designed to achieve size, ambition and scale. Devised by AHRC in collaboration with DCMS, and launched successively over the next 24 months to target the specified research fields highlighted in the recommendations below, to help drive the UK creative and cultural sector's recovery from the pandemic, and to reap its economic and social benefits.

Recommendation 2: Reach New Global Audiences.

The pivot towards digital modes of presentation is opening up opportunities to reach new global audiences, as well as new hyper-local ones. This extended reach is beginning to provide financial benefit to some organisations. By taking advantage of these new digital audiences the UK will benefit by promoting its rich cultural content internationally in a period when physical participation is restricted. More needs to be done, however, to open up this export opportunity to all. To take the next steps on this journey of online cultural consumption, further research is required to understand new audiences and their preferences. How does content -- in form as well as duration -- need to be adapted and tailored for an online world? And how can free access to one form of content pave the way towards paying for access to another? But a nuanced understanding of audiences -- qualitative as well as quantitative -- is difficult for institutions to achieve alone: support is needed to engage the arts and cultural sector collectively on these research questions, to help practitioners to access "everywhere audiences", and to generate sustainable new revenue streams by doing so.

Action
A targeted joint AHRC-DCMS piece of collaborative research to understand and unlock the potential of reaching new global audiences digitally, starting with a survey of the innovative ways the sector has engaged and monetised their engagement with international audiences. This research should also seek to identify the barriers that are preventing a wider set of cultural organisations from engaging international audiences. An accompanying call to all arts funding agencies for collaborative research to increase our understanding of how digital content for international audiences can complement or support international touring once international travel resumes.

Recommendation 3: Reshape the Policy Environment to Invigorate Creative R&D.

Research funding at the interface of arts and AI/data science needs to be significantly increased Culturally rich collection organisations such as museums and galleries have huge potential to unlock their holdings through innovative R&D projects that can dissolve barriers between different collections, and open them up to new audiences and new cross-collection lines of research. The AHRC-funded research programme *Towards a National Collection* is taking the first step towards unlocking holdings through innovative R&D projects. Funding is needed for a second phase to move towards dissolving the barriers identified.

There is a vital levelling-up aspect to this challenge. Many of the creative-tech companies exist outside of London and the South East (for example, Dundee-Abertay and gaming) and smaller arts and cultural organisations are geographically spread throughout the country. Re-invigorating creative R&D could help bring the economic as well as societal benefits of cutting-edge research to a much wider range of places, including those not traditionally touched by increasing investment in science. More specifically, the Government's chosen definition of research and development does not fully recognise or reward risk-taking in creative endeavours – particularly those making use of innovative technology.

Action
DCMS working with HMRC and the sector will explore the definition of R&D for the creative industries – initially feeding into the recently announced HMT consultation on R&D in the Spring Budget. Targeted research by the AHRC Creative Industries Policy & Evidence Centre, in conjunction with DCMS, will help to understand how R&D can be bolstered within the cultural and creative industries, to quantify the value of creative R&D, and offer workable policy solutions. Learning from Festival UK* 2022 will enhance the effectiveness of R&D in fostering creativity and innovation between cross-sector organisations, demonstrated through their STEAM (science, tech, engineering, arts, maths) events.

AHRC and DCMS to work together to develop the evidence base on how technology is used within the creative industries, otherwise known as 'CreaTech'.[10] DCMS to consider how we can support innovation, including adoption and diffusion, across sectoral teams in DCMS, across Government departments and with industry partners.

Recommendation 4: Broaden Access to Digital for Producers and Consumers.

Digital content platforms have proliferated with many different options currently available. But when huge content aggregators are the main channels to market and control product placement and search results, it is challenging for smaller creators to get to market, to navigate the available options, and to achieve viable audience sizes. Some organisations have developed their own bespoke streaming options, but not every organisation has the capacity to invest in them. Could the bigger players be incentivized to make their platforms open source, not just an asset for themselves? Is there room for a platform that gives smaller cultural practitioners control over their content and how they profit from it, allowing for experimentation, content aggregation, and making content more accessible to new audiences?

---

[10] CreaTech is where creativity meets technology. It brings together creative skills and emerging technologies to create new ways of engaging audiences and to inspire business growth and investment.

Action

Targeted research on the barriers to entry into the digital market faced by freelance artists and smaller creative organisations, leading to policy interventions that level up the commercial opportunities to stream beyond the larger institutions and beyond London. An additional barrier, that is particularly relevant to smaller content creators, is the unequal playing field between the physical and digital in accessing tax relief for the sector. More research is required to investigate these questions around the financial viability of online performances or their revenue generating potential.

Recommendation 5: Increase Data Sharing.

It is imperative to open up access to data, in particular audience data, to create a shared understanding of consumer and audience behaviour arising from new modes of engagement. As noted in the National Data Strategy,[11] aggregation of data from different sources can lead to new insights, and data sharing can fuel growth and innovation. Data sharing in the cultural sector is a key issue: the majority of data is either behind a paywall, not collected, or not shared. This is a significant obstacle for medium and small organizations.

Action

A joint AHRC-DCMS collaborative research project to enhance understanding of how innovative digital content and platforms reduce barriers to audience participation, generate new income streams, support freelance artists and smaller organisations, and retain copyright for producers. To include targeted research on the barriers to entry faced by freelance artists and smaller creative organisations; research into opening up access to data, in particular audience data; improved understanding of changes to audiences arising from new modes of engagement.

Recommendation 6: Support Future Live Performance.

Socially distanced performances between lockdowns were a triumph. While demand for future live performance has remained strong throughout the pandemic, the pandemic has hit the live performance sector hard. Financial pressures have intensified across the sector from producers to freelancers. The sector will need strong support to build back better. What can we understand about changes in audience demand for future live performances? The Birmingham 2022 Commonwealth Games, The Queen's Platinum Jubilee, and Festival UK* 2022 will bring people together and be a moment of renewal for this country as we emerge from COVID-19. These events should be harnessed to restore confidence to the sector and to provide a platform for the UK to shine on a global stage as we emerge from the pandemic.

Action

AHRC will (a.) distil the insights and intelligence from its rapid response COVID-19 research and present this in a timely fashion to DCMS and (b.) identify gaps in knowledge about COVID-secure environments for live cultural experiences. Policy interventions should be identified that promote the safe return of the sector through a reopening campaign informed by and referencing this research.

Recommendation 7: Build a Strong, Resilient and Diverse Digital Skills Base.

The pandemic highlights the need to strengthen and diversify the UK's digital cultural skills base if new ways of working witnessed over the last year are to survive. The report identifies a number of skills

---

[11] DCMS, (2020) 'National Data Strategy', https://www.gov.uk/government/publications/uk-national-data-strategy

gaps and regional 'skills deserts'. National investment in digital upskilling is required, with a strong emphasis on digital skills sharing, both across the private and public spheres, and between larger and smaller organisations. DCMS and the wider Government are currently looking to address these needs through programmes such as [National Skills Fund](#), [Digital Skills Partnership,](#) [Digital Skills Bootcamps,](#) [and Culture is Digital](#). There is an opportunity post-pandemic to promote such programmes and look at new ways to diversify and upskill the cultural workforce. This should include careful consideration of digital poverty, in particular for those who during the pandemic have experienced barriers to engaging with cultural life.

Action

AHRC to work with DCMS and other arts funding agencies to look at the digital skills gaps in the UK cultural and creative sector, with a focus on regional growth and interconnectivity. Building on Arts Council England's digital maturity index and tech champions network, DCMS will continue to invest in schemes such as the National Skills Fund, Digital Skills Partnerships and Digital Skills Bootcamps to ensure the whole cultural and creative sector can embrace digital transformation and build a workforce with the necessary skills.

Recommendation 8: Cement the link between Cultural Access and Health and Well-being up.

The positive link between cultural participation and mental health and well-being was confirmed by many of the contributors to Boundless Creativity. During the pandemic cultural organisations have demonstrated community and social engagement by delivering food, providing educational resources and tackling loneliness. Research supported by AHRC during the pandemic reaffirms the value of harnessing the power of cultural access, digital and physical, to mitigate the burdens of mental ill-health – burdens which, as we know, have fallen very unevenly under COVID-19. Looking beyond the pandemic, there is an opportunity to develop on the existing research base to look specifically at the role of culture and creative sectors in national renewal.

Action

Major new AHRC research programme, with the support of DCMS, subject to the forthcoming spending review, to grow the evidence base linking cultural assets and creative activity post-COVID to mental health specifically and to health generally. Demonstrate the health and wellbeing benefit of the cultural sector through the Cultural Heritage Capital programme, which seeks to align cultural capital with HMT Green Book.

Recommendation 9: Diversify and Nurture Talent.

There is an opportunity post-pandemic to improve cultural access for all. As theatres, museums and heritage sites closed, new and more flexible ways of remote working emerged. In a sector that sometimes struggles to diversify its workforce, this opportunity must be seized. Ideas are the currency of the arts and cultural sector, so the more diverse their workforces, the richer their output is likely to be. Due to repeated lockdowns, the sector has also seen a steeper reduction in its workforce compared to other sectors. The existing, largely freelance creative workforce has been especially hard hit by the restrictions leaving its needs to be urgently addressed.

ACTION

Future research projects to look at the impact of COVID-19 on access to culture across the country. A specific call to arts funding agencies to undertake collaborative research on the impact of COVID-19

on new entrants to the cultural and creative sectors' workforce, bringing back talent recently lost, in particular amongst Black and ethnic minority groups, women, young people and freelancers. DCMS to promote opportunities for young people, for example through the Creative Careers Programme, to overcome informational and aspirational barriers to entry, with a particular focus on Schools in Opportunity Areas.

The report's recommendations by target agency

For the AHRC:
- Targeted research by the AHRC Creative Industries Policy & Evidence Centre to understand how R&D can be bolstered within the cultural and creative industries, to quantify the value of creative R&D, and to offer workable policy solutions.
- Distillation of the insights and intelligence from AHRC's rapid response COVID-19 research on live performance with a view to presenting this in a timely fashion to DCMS, identifying gaps in knowledge regarding COVID-secure live cultural environments.

For DCMS:
- DCMS to work with HMRC and the cultural sector to explore the definition of R&D for the creative industries – initially feeding into the recently-announced HMT consultation on R&D in the Spring Budget.
- Learn from Festival UK* 2022 to understand the effectiveness of R&D in fostering creativity and innovation between cross-sector organisations.
- Promote the safe return of the sector through a reopening campaign to help restore confidence and demand.
- Invest in Government schemes such as the National Skills Fund, Digital Skills Partnership and Digital Skills Bootcamps to ensure the whole cultural and creative sector can embrace the digital transformation and build a workforce with the necessary skills.
- Promote opportunities for young people from diverse backgrounds, such as through the Creative Careers Programme, to overcome informational and aspirational barriers to entry, with a particular focus on Schools in Opportunity Areas.

Jointly for AHRC and DCMS:
- New Boundless Creativity funding calls, subject to the spending review, designed to achieve size, ambition and scale, devised by AHRC in collaboration with DCMS, and launched successively over the next 24 months to target the following research fields:
  - Understand and unlock the potential of reaching new global audiences digitally, by surveying the innovative ways the sector has monetised their engagement with international audiences. This research should also seek to identify the barriers that are preventing a wider set of cultural organisations from engaging international audiences.
  - Increase our understanding of how innovative digital content platforms can reduce barriers to audience participation, support freelance artists and smaller organisations, and retain copyright for producers.
  - Grow the evidence base linking cultural assets and creative activity post-COVID to mental health and health generally, and to identify the local assets, partnerships and delivery mechanisms best suited to a national roll-out of arts- and culture-based policy to redress the inequalities in health outcomes amplified by the pandemic.

- AHRC and DCMS to work together to develop the evidence base on how technology is used within the creative industries, otherwise known as 'CreaTech'. DCMS to consider how we can support innovation, including adoption and diffusion, across sectoral teams in DCMS, across Government departments and with industry partners.

For arts funding agencies more broadly:
- A call for collaborative research to increase understanding of how digital content for international audiences can support international touring, once international touring resumes.
- AHRC to work with DCMS and other funding agencies to look at the digital skills gaps in the UK cultural and creative sector, with a focus on regional growth and interconnectivity.
- Arts funding agencies to work with DCMS to demonstrate the health and wellbeing benefits of the cultural sector through the Cultural Heritage Capital programme, seeking to align cultural capital with HMT Green Book.
- A call to arts funding agencies to undertake collaborative research looking at the impact of COVID-19 on new entrants to the cultural and creative sectors' workforce, looking specifically at the entry and exit flows of young people and freelancers.