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On-Demand Culture: How the lockdown is changing games and streaming services

Insights for policy makers

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Covid-19 regulations and restrictions have meant conventional forms of leisure and culture have either stopped or greatly changed. The lockdown has, however, also seen dramatic growth for on-demand services. This has occurred in multiple media including games, live video and TV.

This insights paper focuses on some of the highest profile on-demand media services: Netflix, Steam, Spotify, and Twitch. We chose to look at data from these platforms because we think they are indicative of important longer-term trends. Our analysis uses data from various sources including published research, publicly available aggregated user data, and third-party data

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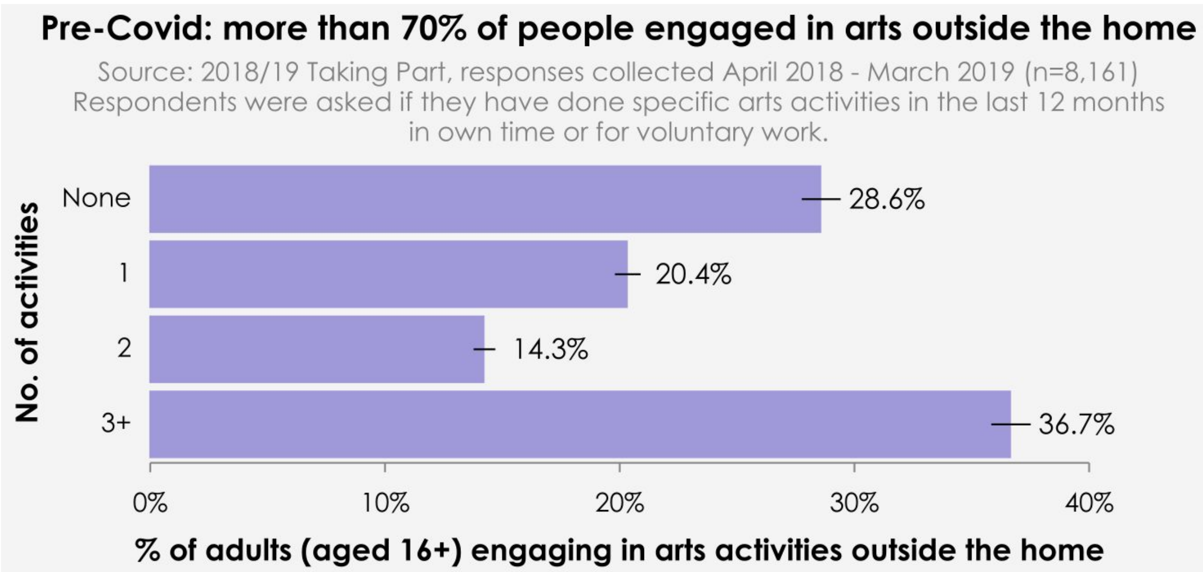
Our analysis highlights five clear changes in the way people consume digital and streaming content:

1. **New lockdown gamers:** the data shows an increase in the number of concurrent users on Steam compared to the previous two years.
2. **Gaming is less concentrated around weekends:** in the months after the first lockdown, activity on Steam has been more evenly distributed throughout the week.
3. **Many older adults have embraced online cultural participation in lockdown,** from streaming TV and films to creating content online, with participation rising among those aged 55 and above.
4. **On-demand TV received a lockdown boost in audiences,** including not just subscription video-on-demand (SVoD) services but also traditional broadcast TV, including broadcast video-on-demand (BVoD). Broadcast TV viewing (including live and catch-up) was markedly higher during UK lockdowns.
5. **New audiences for live streaming:** there has been an increase in the number of new channels and viewers on Twitch. This increase is part of a growing interest in home broadcasting and more 'casual' creative production.

The theatre, the concert hall, the club, the cinema, the museum: Covid-19 has seen the traditional venues where cultural and creative activity finds an audience sadly closed. In aggregate, there has been an increased domestic demand for culture which has resulted in large increases in the use of on-demand internet services, as we show in this briefing using data from a range of digital platforms (the video streaming site Twitch, the game platform Steam, the music streaming site Spotify) and broadcast TV viewing data. There has also been an impact on the time in the week when this consumption occurs.

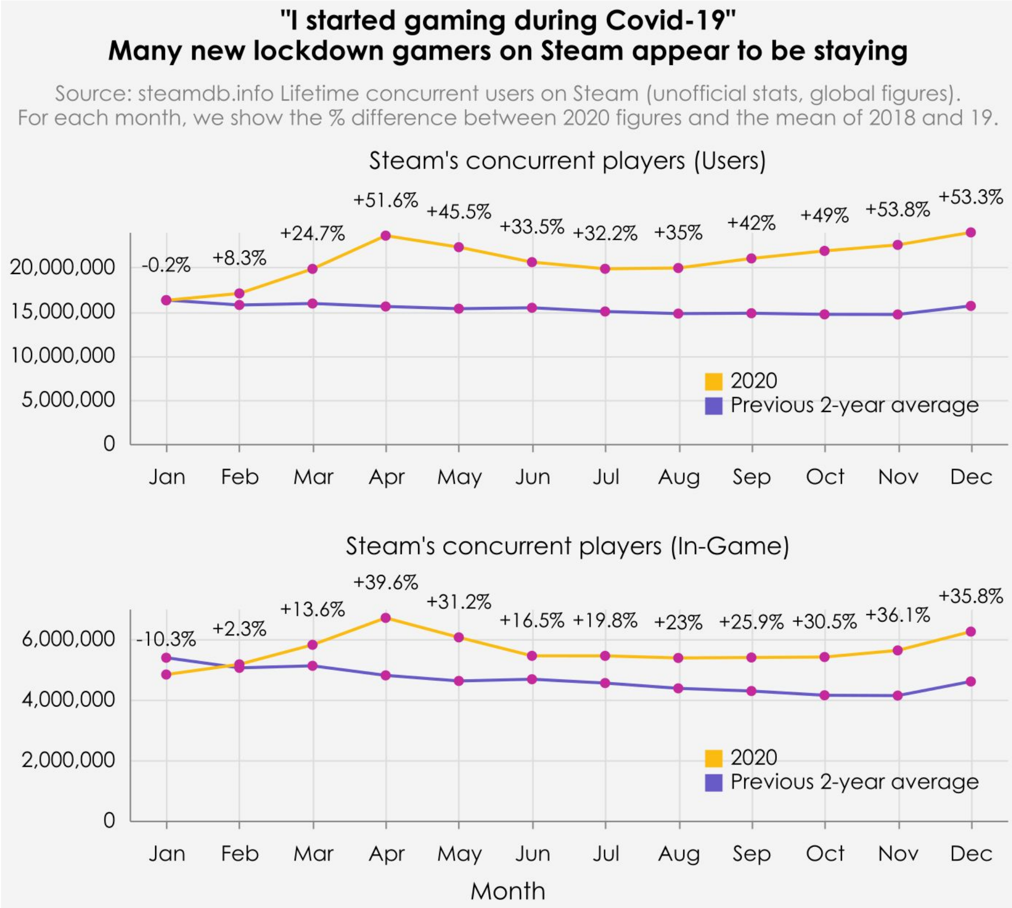
Before the pandemic the majority of us had engaged with arts and cultural activities outside the home. 71% of the British public engaged in some form of "arts outside the home" -- participating in activities from rehearsed performances to street arts and photography to book clubs, according to the 2018/19 Taking Part survey. 59% had watched a film at a cinema/other venue and 29% had been to the theatre in the last 12 months.



Much of this physical cultural participation has now been stopped, or at least severely restricted by social distancing. The data suggest that at least part of the cultural appetite has been channeled into on-demand services.

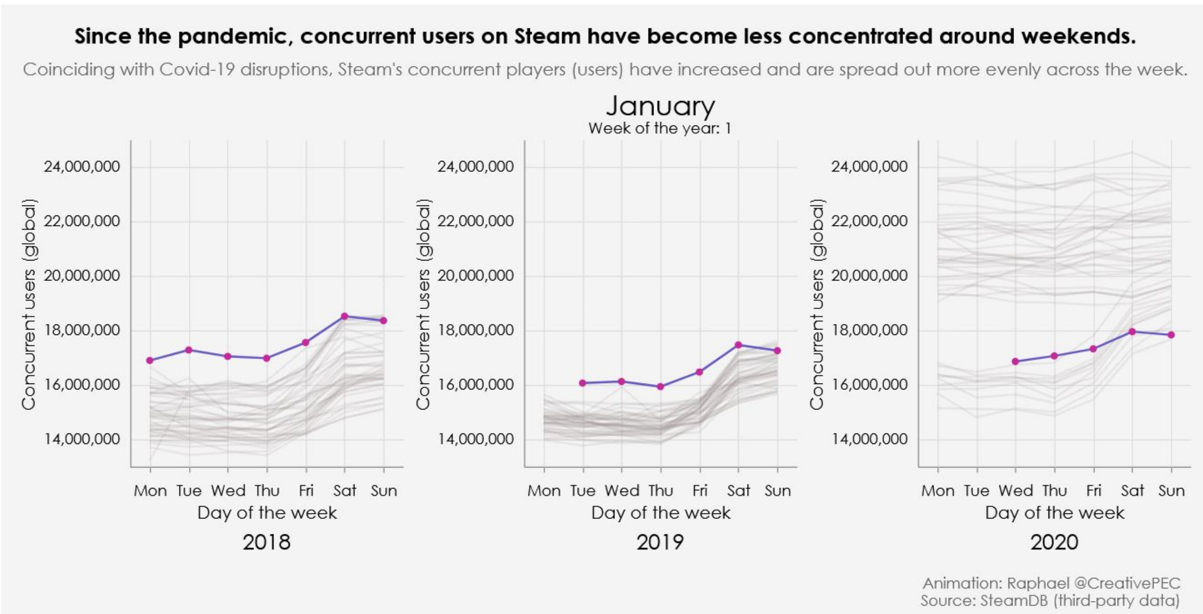
1. New lockdown gamers: the data shows an increase in the number of concurrent users on Steam compared to the previous two years.

Since the first lockdown in March, as people spent more time indoors, there have been many more concurrent users on the games distribution service Steam. We visualised third-party global figures of Steam's concurrent users from SteamDB. Every month in 2020 since February has seen higher numbers of concurrent users (in-game or not) on Steam compared with the average of the previous two years. Many new lockdown gamers appear to be staying.



2. **Not just for the weekend:** in the months after the first lockdown, activity on Steam has been more evenly distributed throughout the week.

Activity on Steam has become less concentrated around the weekends: this is drastically different from patterns in the same weeks of 2018 and 2019 -- which traditionally follow the pattern of having highest activity from Fridays to Sundays.



This traditional weekly pattern gradually began to reappear around October 2020, albeit much less pronounced than in previous years. These marked changes in consumption patterns are unlikely to be unique to gaming. With employment, commute and leisure patterns heavily disrupted by the pandemic, audiences are likely to continue forming new consumption habits.

3. Many older adults have embraced online cultural participation in lockdown.

In an earlier PEC research report *Streaming Culture*, using 2013-18 data from a survey from the IPO, we suggested that older people are a potential untapped new audience in the online cultural consumption landscape. It appears lockdown has accelerated the adoption of online TV/film streaming in particular by older audiences.

Analysis from the Office of Communications (Ofcom) shows that approximately "12 million online adults gained access to a new SVoD subscription during lockdown", with a quarter of those being first-time users. Many of these new users were in older age groups, with "32% of 55-64-year-olds [using] SVoD services in the early lockdown period, up from 25% pre-lockdown, while 15% of over-64s used them (up from 12%)."

Lockdown also seems to have accelerated online content creation by older audiences: When asked whether they had created and posted their own content online on e.g. Facebook, Instagram, TikTok and YouTube, 32% of 55+ year olds said they had ever done this, lower than in any other age group. But, of these content creators, 26% had not done so at all prior to the Covid-19 pandemic, higher than in any other age group.

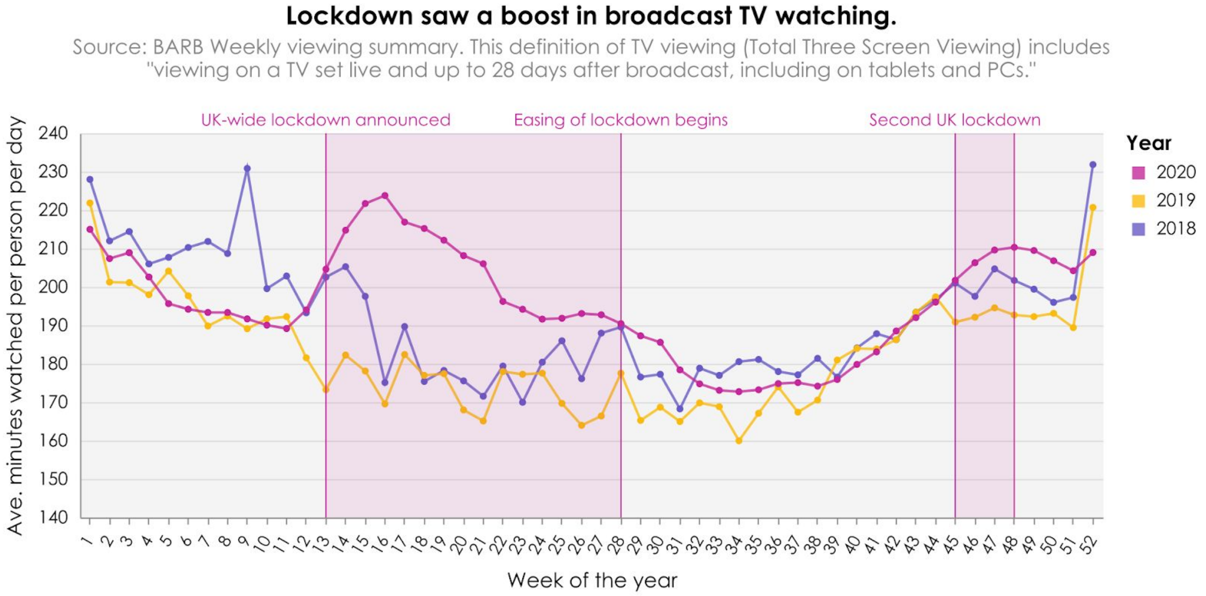
4. On-demand TV received a lockdown boost in audiences, including not just subscription video-on-demand (SVoD) services but also traditional broadcast TV, including broadcast video-on-demand (BVoD). Broadcast TV viewing was markedly higher during UK lockdowns.

Data from the British Film Institute (BFI) shows the UK box office has been severely affected since lockdown. Their Covid-19 impact report released in September 2020 showed that "2020's gross-to-date of £282m was only around 30% of what 2018 and 2019 had achieved in the same period." As cinemas were forced to close, part of the demand for on-screen entertainment has been met by on-demand streaming on smaller screens.

The boost was not only for SVoD services, such as Netflix, Amazon Prime Video and Disney+. Covid-19 also saw audiences turn in greater numbers to more traditional broadcast TV channels, including live TV and also BVoD services, for information and entertainment. Ofcom found that in the first month of lockdown (April 2020), the average person per day watched 1.5 hours more of audiovisual content than in April 2019.

We visualised weekly TV viewing figures from the Broadcasters Audience Research Board (BARB) from 2018-2020. During lockdown weeks (end of March to mid July, as well as in November), weekly TV viewing figures (including live and catch up) during lockdown was higher in 2020 than in the previous two years. The figures for 2020 were not higher than 2019 and 2018 in the pre-lockdown months and were not much higher in the post-lockdown months.

The PEC/IPO Audience Tracker provides further evidence that the increased TV viewing was as a direct consequence of lockdown: it found that individuals in England in the cohort who lived in areas that moved into lockdown increased their consumption of TV, whereas individuals who were not in lockdown did not.



The top TV channels by weekly viewership share remained fairly stable throughout the year: with BBC1 on top, followed by ITV (inc +1 and HD), BBC2, Channel 4 (inc +1 and HD), Channel 5 (inc +1) and ITV3 (inc +1), where the +1 indicates the timeshifted version of the channel which is broadcast with a delay.

Many have pointed out that the pandemic brought "to the fore [...] the public service aspect" of public service broadcasting (PSB). Eight in ten people (82%) said they used BBC for news and information about Covid-19 in the first week of lockdown, well ahead of other broadcasters, social media and other sources. Qualitative research conducted in August 2020 also suggests that "lockdown [...] highlighted the value of public service broadcasting for elderly and more vulnerable audiences, as well as all those shielding at home."

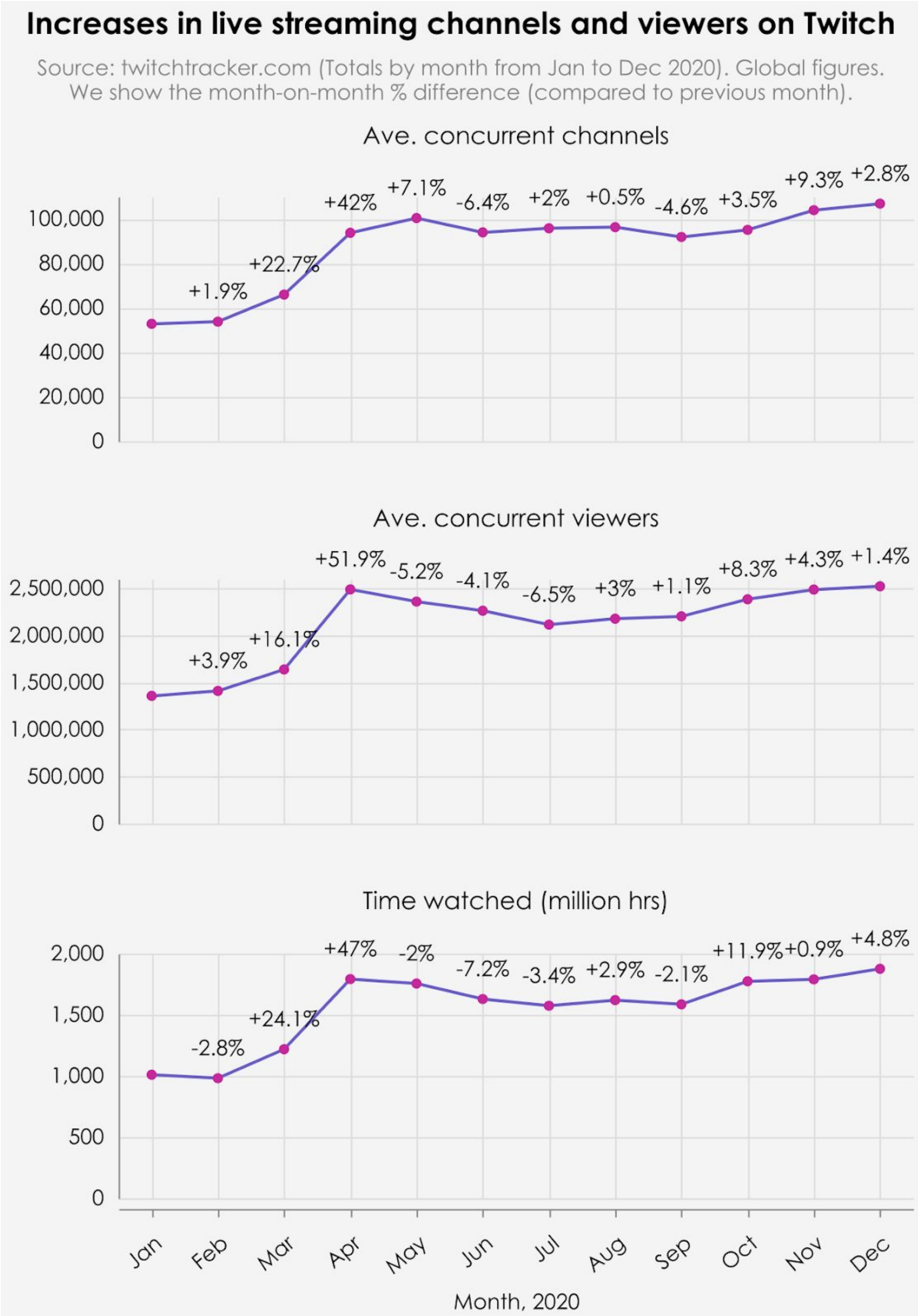
5. New audiences for live streaming: there have been increases in channels and viewers on Twitch which has persisted as part of a growing interest in home broadcasting and more 'casual' creative production.

Live streaming site Twitch saw an increase in the number of channels and viewers, especially during the first national lockdown. Twitch saw a 42% increase in average concurrent channels and a 52% increase in average global concurrent viewers in April compared to March.

It is possible that some of the increase in Twitch usage has been at the expense of other live streaming platforms, as they present similar appeal to users. The association of the changes with the start of the lockdown suggests however that this cannot be exclusively the case.

While some of the streaming viewer gains have tapered off over the summer from May to July, time watched on Twitch globally and average concurrent viewers have since reverted back to an upwards trend. By December 2020, the figures remain higher than pre-lockdown levels for average concurrent viewers and channels and the month saw an all-time high for both hours streamed and hours watched for the platform.

With around [16% of the people saying they watched live streams of people playing video games (e.g. on Twitch) over lockdown] and around 12% having watched e-sports, home broadcasting of games and other activities will likely continue to be one of the new frontiers of the socially-distanced online cultural landscape.

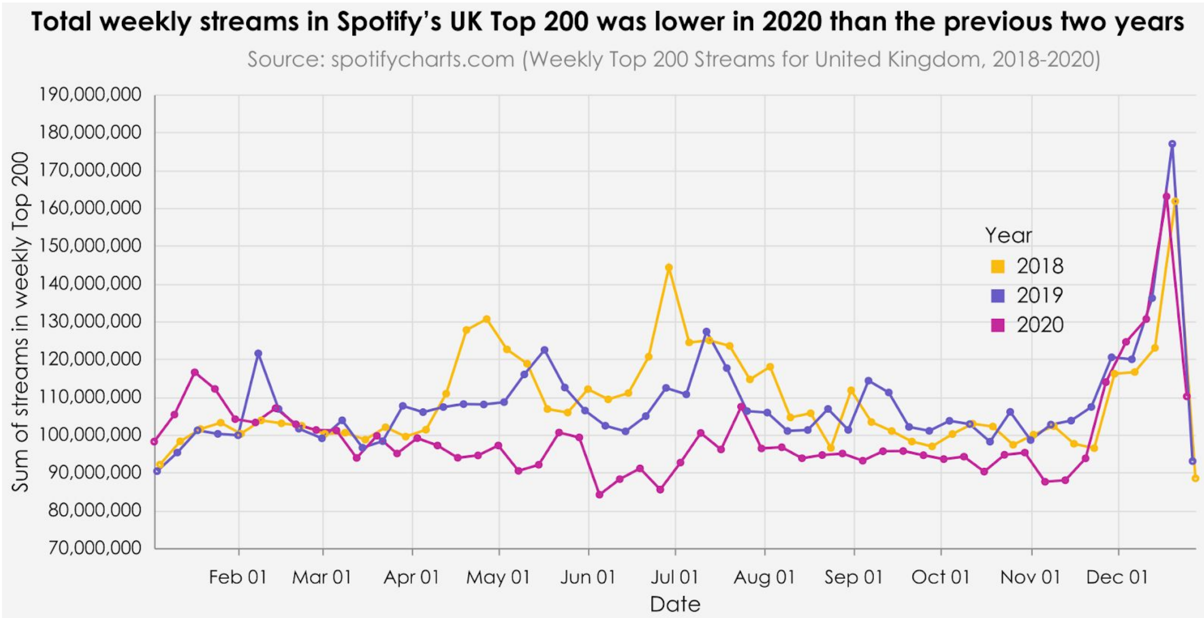


6. **Digital on-demand consumption shifts can be nuanced and are not always increases:** e.g. total weekly streams in Spotify's UK Top 200 was lower in 2020 than the previous two years despite an overall increase in subscribers.

Covid restrictions have boosted on-demand digital cultural services but the increases are not observed across all types of metrics, and there is often some nuance in the numbers.

Data from Spotify's official weekly Top 200 UK charts shows that the sum of streams per week has actually been lower since April 2020 than the equivalent over the same time periods in 2018 or 2019.

This may seem counterintuitive as Spotify reached 130 million paid subscribers in April 2020. One explanation is that 25% of consumers in the UK had been using their usual commute listening time for other activities, so it is possible "to have falling streams but a growing user base, i.e. more people signing up but using the service less.".



7. On-demand services rely on heavy bandwidth — however there are significant digital inequalities in access to bandwidth.

UK's internet use "surged to record levels" this year, according to Ofcom's Online Nation report. During the early stages of the first lockdown, large events relating to digital cultural consumption and constrained capacity resulted in changes in the quality of services that content providers were able to offer. For example, notable events affecting broadband usage included "Netflix reducing the bitrates of its video streaming service across Europe from 23 March 2020 to reduce the pressure on broadband networks."

On-demand services require a good Internet connection to stream activities at high quality. People's access to them, and the extent to which there is digital exclusion, due to variations in infrastructure, have been emphasised during Covid as internet use has increased.

In its latest Access and Inclusion Study, Ofcom found that 'three in ten of the "most financially vulnerable" group live in households without any internet access and 8% have access only via a mobile.'

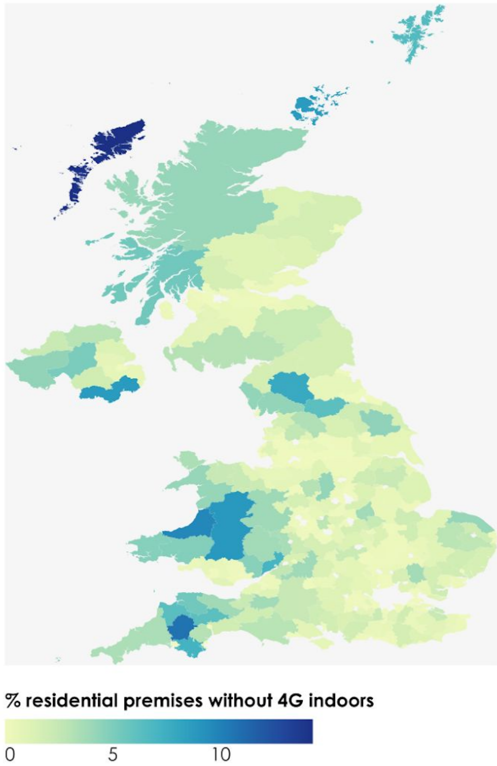
We visualised, at a local authority level, Ofcom's data on Internet availability. The data shows that in May 2020, 2% of UK residential premises (homes) lack a 'decent' broadband connection (defined as at least 10 Megabits per second (Mbps) download speed as per the Universal Service Obligation minimum), and 9% of residential premises do not have a 4G signal indoors. While gaps have been closing, many homes still lack decent Internet especially in rural areas in the UK outside London, the Midlands and the South East.

2% of UK residential premises lack a 'decent' Internet service from a fixed line

Source: Ofcom Connected Nations (Data from May 2020)
Fixed local and unitary authority data (Resident premises)
Darker = more premises don't have Universal Service Obligation (USO) minimums i.e. download >=10 Mbps, upload >=1Mbps

...and 9% of residential premises have no reliable 4G signal indoors.

Source: Ofcom Connected Nations (Data from May 2020)
Mobile local and unitary authority data (Resident premises)
Darker = more premises don't have reliable signal in geographic area (indoor) with 4G threshold at -95dBm,



Whether for teleconferencing, work, seeing GPs or streaming music, TV and games, more daily activities now rely on a stable Internet connection. Initiatives tackling digital exclusions in response to the pandemic, such as Operation WiFi, are therefore particularly important.

Implications

Lockdown has boosted online creative content consumption, accelerating existing trends.

The restrictions introduced in response to Covid-19 have meant that a large proportion of leisure activity (socialising, cultural consumption and sport) has been prevented from happening. The restriction of these activities has resulted in an increase in digital content consumption. There is clear evidence of the effects of this from the data we have examined of increases in online consumption from major on-demand platforms in music, gaming, film and video streaming.

This has accelerated underlying trends in the online cultural consumption which were happening before the lockdown like the rising adoption of streaming.

With consumers having had a taste of a wider range of on-demand services, incumbent broadcaster services are likely to face increased competition post-Covid.

Conventional broadcasters have also experienced growth in consumption of their services during the lockdown. However they are likely to face increased competition from on-demand services which have gained new customers during the pandemic. When lockdown measures are relaxed, the return of other leisure activities is likely to reduce the time people spend consuming digital content, resulting in an increasing number of new suppliers competing for a smaller viewing time window along with conventional broadcasters.

In the context of this wider digital landscape there are challenges for smaller cultural institutions developing a distinct digital offer, but also opportunities too.

It should be acknowledged that as public data is more readily available for larger online platforms, our paper reflects trends from the perspective of larger media organisations offering creative content. During the Covid-19 lockdowns cultural organisations such as theatres and music venues have also been offering on-demand services too, with innovative stories around how they have evolved to deliver lockdown culture amidst challenges. Although we do not examine this activity directly our analysis does highlight some of the challenges to developing this offer across the sector, particularly with cultural institutions that do not already have well-established digital offerings.

In the digital cultural space, many of the advantages that physical institutions have are removed or lessened. For example, the geographical advantages of a physical location and a local community with few immediate competitors, the additional pull factors stemming from enjoyment of cultural venues' architecture, or facilities such as cafes. At the same time physical cultural institutions are competing for attention with the huge array of digital content and activities that are available online, an area which, as we have seen, is getting more competitive. It is therefore important for these institutions to consider how to distinguish their offer, particularly in engaging new audiences, from the 16-24 year olds who traditionally have the highest adoption rates of the on-demand services and represent the audiences of the future.

This is particularly important as the accelerated digital transformation also presents an opportunity for cultural institutions. Enhancing existing digital offers like on-demand services, or creating novel forms of engagement may be key to growing and sustaining new audiences post-pandemic when visitors return.

About the Creative Industries Policy and Evidence Centre (PEC)
The Creative Industries Policy and Evidence Centre (PEC) works to support the growth of the UK's creative industries through the production of independent and authoritative evidence and policy advice. Led by Nesta and funded by the Arts and Humanities Research Council as part of the UK Government's Industrial Strategy, the PEC comprises a consortium of universities from across the UK (Birmingham, Cardiff, Edinburgh, Glasgow, Work Foundation at Lancaster University, LSE, Manchester, Newcastle, Sussex and Ulster). The PEC works with a diverse range of industry partners including the Creative Industries Federation