Behind the Screen

How streaming is changing public service media

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Contents

Acknowledgements

Image credits on page 5: *My Life: I Won't Stand for It* (CBBC) Photographer Tyler Funk, *David Baddiel: Jews Don't Count* (Channel 4) Photographer Tom Barnes, *Humza: Forgiving the Unforgivable* (BBC One), *Praying for Armageddon* (BBC Four) Photo provided by Up North Film, *A Believer's Guide to... Becoming Parents* (BBC One) Photographer Libby Overton, *BBC Young Dancer* (BBC Four)

Foreword

Public service media has never been more important – to our democracy, culture, national life, and the pursuit of truth – but its future is uncertain. The nation's Public Service Broadcasters (PSBs) are under extraordinary pressure to retain audiences and protect income sources in a fractured media landscape that is leaving established institutions looking antiquated at best, verging on obsolete.

The broadcasters and legislators are responding to changing audience habits and rapid developments in technology, by prioritising online streaming platforms such as BBC iPlayer and ITVX. Programmes are commissioned (or not) if the subject and format is likely to attract and engage audiences with countless alternatives: YouTube, Netflix, Disney+, etc.

As public service media shifts from universal television channels to personalised streaming platforms, civil society and public institutions face immense challenges in attempting to monitor what is available for audiences to watch and, critically, what is being recommended.

In the past, television schedules showed the range of programmes that were available on each channel. This could be analysed and the results used to hold broadcasters to account. In the new world of 'digital-first' public service media, each audience member increasingly has a bespoke 'schedule' of recommended and promoted 'content' determined by an opaque combination of editorial decisions and algorithmic determinations.

The Media Act 2024 insists that programmes which contribute towards public service remits must be easily discoverable and promoted. How this will be monitored by the media regulator (Ofcom) remains unclear, however, leaving the fate of genres such as the arts, international coverage, religion and belief, and others, hanging in the balance. The danger is clear: as these genres recede further from view, the inevitable decline in viewing figures will trigger further cuts and result in fewer commissions.

In this report we examine the availability, prominence, and discoverability of programmes that support the civic function of public service media across four platforms: iPlayer, ITVX, Channel 4, and 5. Here we focus specifically on television programmes about the arts, international issues, religion and belief. These are amongst a number of 'at-risk genres' that were removed from the public service remit in the Media Act 2024. We set out a series of recommendations that reflect our findings and concerns, and respond to the challenges of monitoring on-demand services.

We recognise the pressure that all PSBs are under. The urgent need to attract and retain audiences is an understandable (even, necessary) response to the existential crises facing PSBs. We acknowledge that programmes about culture, international affairs, religion or belief will not always generate the highest viewing figures and cannot always be the most prominent on these platforms. However, they are a key element of the public service remit of these broadcasters.

Our findings do raise serious concerns about the transparency and accountability of PSBs to the public, civil society, regulators, and government. We hope this report will begin a process of opening-up these platforms to far greater scrutiny so we can, at the very least, understand what is available, discoverable, and prominent.

Catherine Johnson, Professor of Media and Communication at University of Leeds
Gareth Benest, Deputy Executive Director, IBT

Executive Summary

As public service broadcasters continue their transition towards online streaming, our research suggests there are significant risks to the ongoing provision of programmes about the arts, international issues, religion and belief.

Given the vital civic function that these programmes provide, monitoring this provision and documenting the emerging trends remains crucial.

However, this study also demonstrates that monitoring Broadcast Video on Demand (BVoD) platforms is particularly challenging, with significant implications for the transparency and accountability of public service media in the UK.

Key findings

We found that programmes about the arts, international issues, religion and belief were not readily available, prominent or discoverable, particularly on the platforms operated by commercial PSBs.

These programmes were not prominent on the homepages, were rarely recommended before programmes (e.g. trailers), and were not easy to find using the search functions.

Although it was also easier to find these programmes on iPlayer through its superior search function, its recommendation algorithms meant that, unless audiences actively sought out and watched programmes from these genres, the chance of discovering them was much lower.

Availability

Many more programmes about the arts, international issues, religion and belief were available on iPlayer than on the commercial PSBs. There was far more arts programming provided (62%), across all four BVoDs, compared to programmes about international issues (31%) or religion and belief (7%).

For the arts, the focus on commercial platforms was popular culture, whereas iPlayer provided a wider range of art forms and programme formats. Programmes about international issues were dominated by celebrity-fronted documentaries and travelogues, mostly about Europe. The small number of programmes about religion and belief focused heavily on Christianity.

Prominence

iPlayer was the only platform that gave prominence to the arts, international issues, religion and belief on its homepage in significant numbers. However, as a proportion of its catalogue, iPlayer performs similarly to Channel 4 and Channel 5. ITVX gave the least prominence to these programmes on its homepage.

Personalisation had a limited impact on genre prominence within the commercial PSB platforms but significantly affected the homepage of iPlayer. Alarmingly, we found that whilst viewing programmes about the arts, international issues, religion and belief increased the likelihood that other programmes from these genres would be prominently displayed, the opposite was also true: audiences that didn't demonstrate interest in these programmes were less likely to encounter them on iPlayer.

Discoverability

All of the platforms organised their programmes into categories. However, the categories used were too broad to enable audiences to discover programmes about the arts, international issues, religion and belief.

Their search functions were of little use in helping audiences to find programmes from these genres, with iPlayer significantly out-performing the commercial PSBs by returning more relevant results.

Trailers or end-of-programme recommendations were not being used to broaden the range of content that audiences encounter.

Challenges

The refusal of broadcasters to make their APIs (the protocols that underpin any kind of software) public, and denial of access to commercially insensitive catalogue data, meant that this research could only be achieved through complex and time-consuming web scraping.

The technical skills and resources required to do so put the monitoring of public service provision on BVoDs out of reach for most civil society and public organisations.

Recommendations

1   All PSBs should be required to publish an annual statement setting out the principles and values underpinning their use of algorithms and recommendation systems within BVoD platforms.

2   The media regulator (Ofcom) needs to clarify how it will monitor the availability, prominence, and discoverability of genres that were removed from public service remits by the Media Act 2024.

3   PSBs should work together to establish a culture of transparency and accountability around their BVoD platforms, helping to nurture audience trust and protect public service values.

4   PSBs should facilitate the monitoring of their platforms by civil society organisations (charities, researchers, audience groups, etc.) by opening access to software protocols (APIs) and non-commercially sensitive platform and audience data.

5   The government and regulator need to incentivise PSBs to broaden the range of genres and subject matter promoted and recommended to audiences; recognising the civic value of serendipity in public service media and the dangers of creating audience silos.

6   PSBs should collaborate on sharing innovations and best practices to help improve audience experiences across platforms; including improved search functions, personalisation systems, and standardised meta-data and content categorisation.
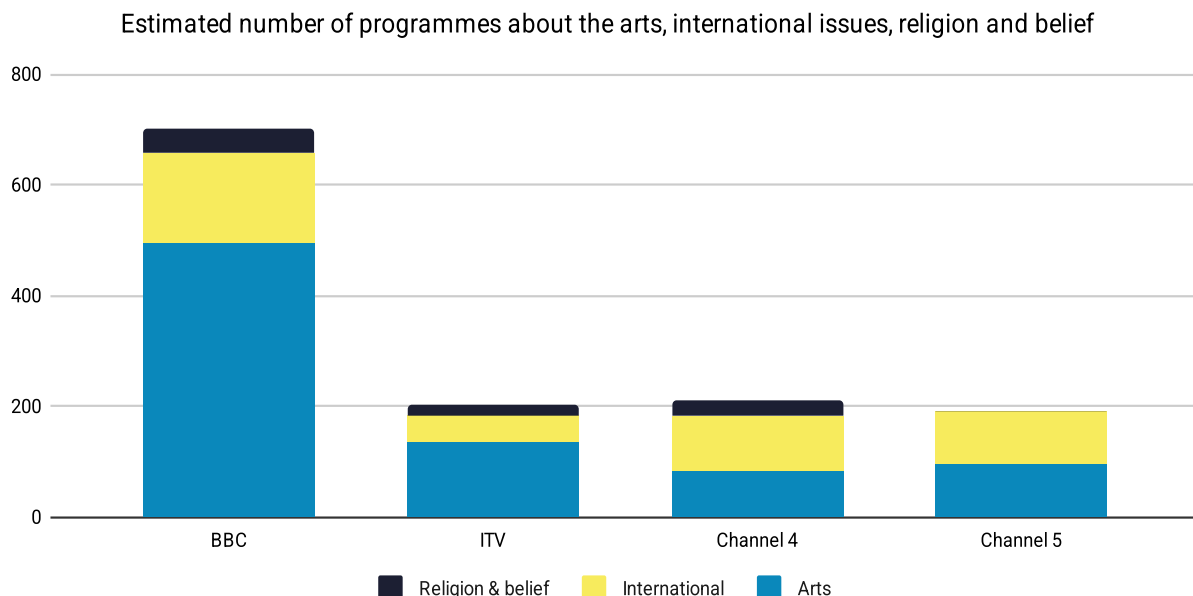
Catalogue analysis
assessing what's available

We began our research by examining the amount and type of programmes provided by the UK's PSBs through their BVoD services (between February and May 2025) by drawing on data scraped from the full catalogues for iPlayer, ITVX, and Channel 5, and catalogue data provided directly by Channel 4. News bulletins were excluded from this analysis because, whilst they did appear on all of the BVoDs, they were not consistently catalogued across the platforms in the same way as other programmes.

The programme catalogues differed significantly in terms of size and composition. iPlayer had the largest catalogue of programmes (around 3,000) followed by Channel 4 (almost 2,200). Channel 5 and ITVX both had significantly smaller collections of approximately 1,500 programmes each. The size of the catalogues remained fairly constant throughout the period monitored.

Across most BVoDs, the Factual/Documentary categories made up a large proportion of all available programmes. Out of the nearly 3,000 programmes available on iPlayer, almost half were listed under Factual (45% in February / 44% in May). Likewise, the most heavily populated category on Channel 4 and Channel 5 was Documentary, which contained nearly 35% and 25% of all programmes, respectively. ITVX was the exception. Film was the most heavily populated category followed by Documentaries & Lifestyle.

Estimated number of programmes about the arts, international issues, religion and belief

Legend: ■ Religion & belief ■ International ■ Arts

Michael Palin in Nigeria
(Channel 5)

Availability of at-risk genres

To understand how the three genres map onto these overall catalogue trends, we manually coded programming about the arts, international issues, religion and belief from representative randomised samples of 10% of the catalogue contents. From this, we can estimate how many programmes from these genres are available. It should be noted that the figures are rough estimates. They are calculated by multiplying the number of programmes within each genre by ten and taking the average figure from across the data set.

We found that iPlayer provided by far the most programmes from within the genres, accounting for over half of all programmes recorded. ITVX, Channel 4 and Channel 5 provided a broadly similar amount of programmes (16%, 16% and 15% respectively), but this represented just under one third each of the amount available on iPlayer.

Arts programming was the most strongly represented of the three genres, accounting for 62% of all the programmes recorded across the three genres. This compares with 31% for international coverage, and just 7% for programmes about religion and belief. Our search and personalisation analysis (see Discoverability section) did identify a very small number of programmes about religion and belief within the catalogue of Channel 5 – five in total. These were not present in sufficient numbers to be captured in our randomised samples of the overall catalogue and indicate the limited availability of programmes from this genre within Channel 5's catalogue during the first few months of 2025.

International

The international programmes recorded were largely documentaries and other factual formats. These were dominated by celebrity-fronted documentaries and travelogues, which mirrors recent findings by the International Broadcasting Trust (IBT) into the linear schedules.[1] Channel 5's international output was almost entirely celebrity-led travelogues whilst ITVX provided a combination of travelogues and reality formats, with the occasional documentary on current affairs or true crime. iPlayer and Channel 4 offered a wider range of international programmes exploring politics, art, history, and nature.

The more serious documentaries tended to focus on current conflicts, in particular the wars in Gaza and Ukraine. Where specific countries/regions were mentioned in the programme title or description, Europe was the primary geographic area covered (26 programmes), followed by the Americas (18 programmes). Africa, Australasia, Asia and the Middle East had similar levels of representation (8 programmes each).

Arts

Channel 5's arts programming largely consisted of documentaries about popular culture. In particular, there were numerous celebrity profiles such as *Leonard Rossiter: Comedy Great*, *Maggie Smith: A Tribute* and *Elvis: Rise and Fall of the King*. ITVX also had a strong emphasis on popular culture including stand-up comedy, live music, and documentaries on pop culture. It also included a drama about Cary Grant (*Archie*), two adaptations of literary classics and one recording of a stage play (*Twelfth Night*). Channel 4's arts programming was similar, although it did include Random Acts, a series that showcases creative films (including avant-garde visual art) and a collection of short films nominated for an international LGBTQ film prize (*Iris Prize: Into the Unknown*).

Overall, however, the range of arts and culture explored was limited, with only iPlayer providing a wide variety of subjects and art forms including ballet, opera, visual art and classical music. iPlayer not only offered the greatest number of programmes focused on the arts but it also provided a wider variety of programme types including children's documentaries, live performances, plays, comedies, and literary adaptations.

Religion & Belief

The sample of programmes about religion or belief was small, with no religious programmes recorded on Channel 5 during this period. From our personalised accounts on Channel 5, we found that its programming about religion or belief was dominated by a handful of documentaries about Christian religious buildings (*Britain's Great Cathedrals*, *Westminster Abbey: Behind Closed Doors*).

Looking across the samples from February and May, the religious offering on ITVX was also focused on Christianity. The programmes recorded consisted of a comedy (*Tommy Tiernan: Under the Influence*) and a small number of films where religion was a component of a wider story (such as *Whistle Down the Wind* and *Burden*). There were no programmes that were primarily focused on exploring religion or belief.

The majority of Channel 4's religious programmes also focused on Christianity, with just one programme on a different faith (*David Baddiel: Jews Don't Count*). However, Channel 4's sample included a wider range of formats than ITVX or Channel 5, including a sitcom (*Everyone Else Burns*), a reality format (*Living with the Amish*), and a current affairs programme (*Pope Francis: Tributes and Legacy*). iPlayer also had a wider range of formats including documentaries (e.g. *Growing up Jewish* and *Escaping Utopia*), a children's programme about moral values (*Treasure Champs*), and two broadcasts of Islamic festivities.

iPlayer was the only platform that provided programmes about faiths other than Christianity or Judaism. Despite that, Christianity was the dominant religion across all platforms, with only two programmes exploring Judaism (iPlayer and Channel 4) and the two about the Islamic festival of Eid-al-Fitr on iPlayer. There were no programmes in the sample about other major faiths such as Sikhism or Hinduism, despite there being more people identifying as Hindu (1.7%) or Sikh (0.9%) than Jewish (0.5%) in the 2021 UK census.

The Holy Land and Us:
Our Untold Stories (BBC Two)

THE HOLY LAND AND US
OUR UNTOLD STORIES

Prominence
what is visible and what's hidden

The level of prominence afforded to programmes really matters. Just because content is available does not mean it is easy to find. Although audiences make choices about what to watch based on many different factors – habits, marketing, word-of-mouth, mood, etc. – browsing is the most popular way of discovering new things to watch.[2] Given that people typically spend an average of seven minutes choosing what to watch, they are more likely to watch programmes that are readily available and prominent.[3] All of the platforms we studied used a combination of editors (humans) and algorithms (computational processes) to manage and curate their collections, make recommendations for their audience, and determine the prominence of programmes.

Measuring prominence

Programmes are considered to be prominent when they are most visible on the homepage. The area at the top of the homepage (sometimes referred to as the 'hero board') and the first rails (scrolling lists of programmes) offered to the audience provide the greatest levels of prominence.[4] Conversely, the further away from the starting point a programme appears (requiring the audience to scroll, click or search within pages or lists), the less prominent it is considered.

Thumbnails (images accompanying programmes) vary in size and format, which also influences prominence. Programmes which the broadcaster wants to highlight and drive audiences towards often occupy oversized rails with alternative formatting. The most prominent programmes are those that make it onto the hero board – at the top of the homepage – accompanied by a large image that is finely tuned to attract audience attention.[5]

Prominence shapes the audience's awareness of programmes and their opportunities to encounter different types of programmes.[6] The design of the user interface, therefore, can exert influence over which programmes the audience is more or less likely to watch.[7] To understand how prominent programmes about arts, international issues, religion and belief were, we created four custom accounts on each platform with very different viewing habits.

- A general account that only watched programmes that were prominently recommended on the homepage.
- An international account that only watched programming about international issues.
- A religious account that only watched programming about religion and belief.
- An arts account that only watched arts programmes.

Over the first three months of 2025, we 'fed' each account by watching two programmes that were directly relevant to the accounts each week. Then, over a six-week period in April and May, we scraped the homepage of each account every day to understand how it had been personalised in response to different viewing habits. We also scraped a fifth 'clean' account (not signed in and without any user activity) to compare the impact of user behaviour on prominence.

2022 Proms (BBC Four)

Genres in top 100 prominent programmes (clean account)

Legend: Religion & belief, International, Arts

Y-axis: 0, 5, 10, 15 (BBC, ITV, Channel 4, Channel 5)
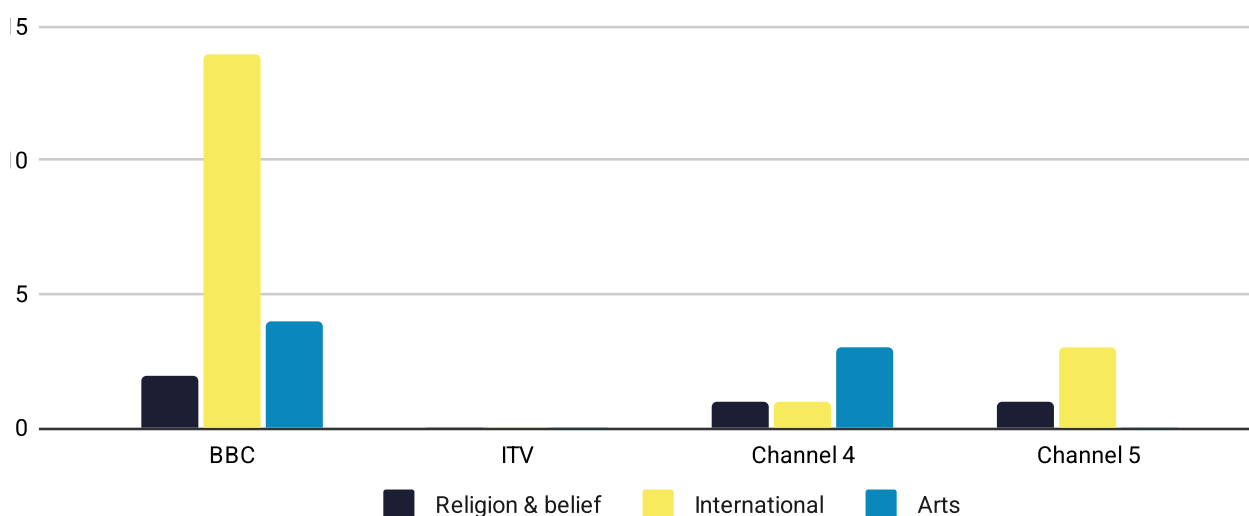
Keeping score

A prominence score was created according to the position of a programme on the homepage (accounting for how far a user needed to scroll before it) and the size of the thumbnail (see Methodology section). If a programme appeared more than once, the score was combined. We then recorded the number of programmes about arts, international issues, religion and belief within the 100 most prominent programmes across each account and each platform.

The data collected provides important insights into how prominent these genres were within BVoD platforms, and the kinds of programmes that were being promoted by the PSBs.

Evaluating the top 100

The homepages of the clean (un-personalised) accounts, included very few programmes from the three genres in the 100 most prominent. Channel 4 displayed just five programmes and Channel 5 displayed four, whilst ITVX had no programmes representing these at-risk genres. iPlayer was an outlier with 20 programmes on its un-personalised homepage. This is likely to be a consequence of the larger collection of such programmes in the iPlayer catalogue. Based on our estimates (see Catalogue analysis section), iPlayer only made 3% of these programmes prominent within the top 100, compared to 2% for both Channel 4 and Channel 5, and 0% for ITVX.

ITVX had the fewest programmes about arts, international issues, religion and belief in its 100 most prominent programmes, across all of our accounts. These genres were not made visible on the homepage of ITVX; with no programmes featured on either the clean, general, or art-focussed accounts. A total of three programmes were recorded (on international issues) on the international and religion & belief accounts.

Evaluating the top ten

The position of at-risk genres reduced significantly – across all platforms – when looking at the ten most prominent programmes. There were no programmes representing these genres in the ten most prominent programmes on ITVX or Channel 5. Each of the accounts we created on Channel 4 displayed one or two arts-related programmes in the top ten, but there were no programmes about international issues or religion and belief.

iPlayer outperformed the other platforms, once again, by featuring between three and five programmes representing the arts, international issues, religion and belief in its top ten across the clean, arts, international and religious accounts. However, the general account did not show any programmes in its ten most prominent programmes.

The Effects of Personalisation

Personalisation did make some difference to the results, particularly on iPlayer. The international, religious and arts accounts on iPlayer all contained significantly more programmes from these genres than featured on the clean account. There was also some indication of how specific personalisation can be (responding to viewer behaviour) across the platforms: each genre-specific account on iPlayer recorded the highest number of prominent programmes from within its genre.

The personalised accounts on Channel 4 and Channel 5 returned marginally more programmes in the 100 most prominent when compared with clean accounts. Nevertheless, the figures remained very low: between five and 12 programmes per account. Unlike on iPlayer, viewing habits on ITVX, Channel 4 and Channel 5 had minimal impact on programme prominence within the homepage.

The only account type for which personalisation diminished the exposure to at-risk genres was the general account on iPlayer. By watching programmes already prominent on the homepage, the general account received less than half as many programmes (nine in total) on the arts, international issues, religion and belief as the clean account (20 in total) among its most prominent 100.

This finding is striking. The decline in prominence for at-risk genres only happened with the iPlayer account that followed editorial choices and watched prominent programmes. All accounts start off as clean accounts, with no information about user preferences for algorithms to pick up and use for personalisation. The homepage composition of a clean account is therefore the result of editorial choices. Yet, when the general account followed the editorial cues and priorities – watching only prominent programmes – the visibility of at-risk genres declined.

Genres in iPlayer top 100 most prominent programmes by account
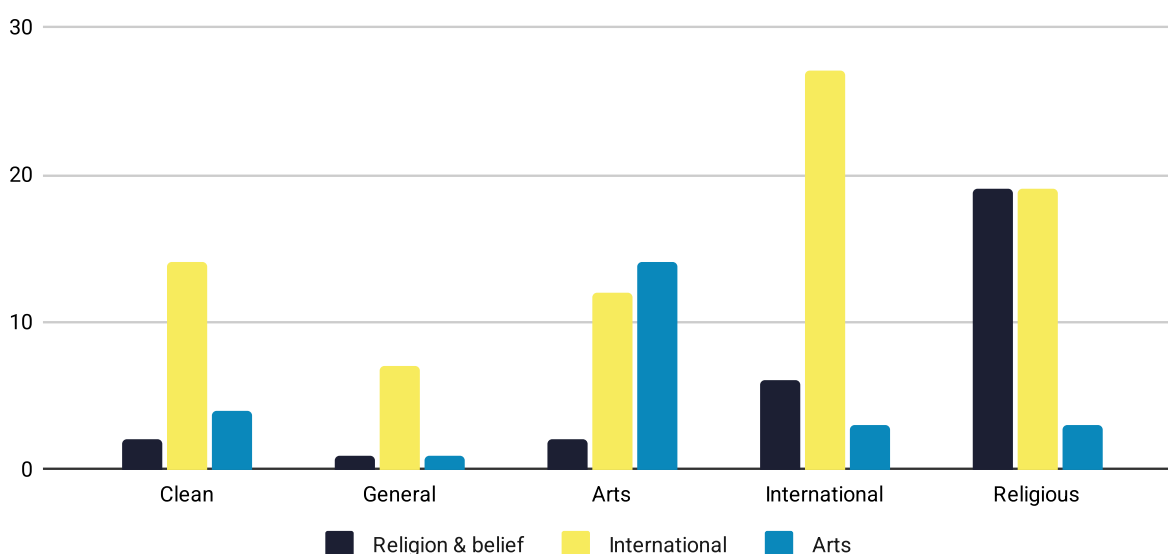
Moving further away from public service programmes

In summary, our research reveals that iPlayer was the only BVoD platform giving prominence to genres that represent core public service values, on its homepage and in significant numbers. However, whilst particular viewing habits increased the likelihood that specific genres would be prominent, the opposite was also true: audiences that didn't demonstrate consistent interest in these programmes were less likely to encounter them on iPlayer.

Meanwhile, these genres were rarely (if ever) promoted by the commercial PSBs (most notably ITVX), and personalisation had a marginal impact on prominence. Whilst too much personalisation risks creating audience silos (or filter bubbles), it's equally concerning that audiences with particular interests were still not being recommended relevant programmes.

Making the top 100

We compiled lists of relevant programmes in the 100 most prominent across each platform, helping us understand what kinds of programmes about the arts, international issues, religion and belief were afforded increased visibility. Overall, programmes on international issues were more likely to feature prominently on homepages than those about the arts or religion and belief. The increasingly widespread format of celebrity-fronted travelogue was particularly common.

ITVX included just two programmes from our genres in its top 100 most prominent programmes, across all accounts. Both were cookery-based travelogues: *James Martin's Spanish Adventure* and *Ainsley's Mediterranean Cookbook*. On Channel 5, six out of the eight most prominent programmes were celebrity-fronted travelogues, including *Michael Palin in Nigeria* and *Sue Perkins Lost in Thailand*. There was just one programme about religion and belief: a true crime series (*Murder in Amish Country*), and the only arts programme was an interview series that included two episodes focused on popular musicians (*Now You Know with Jule Adenuga*).

Channel 4 had a greater number of prominent programmes about arts, international issues, religion and belief (15 in total) and these were fairly evenly spread across the three genres. International coverage was largely confined to current affairs programmes about the conflicts in Palestine and Ukraine. There was just one entertainment format recorded (*School Swap: UK to USA*). The arts programming focused on architecture (e.g. *Grand Designs*), whilst programmes about religion and belief included current affairs programmes and sitcoms (*Father Ted* and *We Are Lady Parts*).

iPlayer had the largest number of programmes appearing prominently across all accounts: 67 in total. The majority of these were programmes about international issues (40 international, 17 arts and 19 religion/belief), again dominated by travelogues (27 programmes) such as *Burma with Simon Reeve* and *India with Sanjeev Bhaskar*. There was also a number of documentaries and current affairs strands such as *Panorama* and *Eye Investigations*. Over half of the programmes exploring the arts on iPlayer were about music, from *Inside Classical* to *ABBA: Against the Odds*. The rest of the arts programming featuring prominently on iPlayer consisted largely of documentaries (such as *Art of Persia*) and travel shows. iPlayer's prominent programming about religion and belief combined travel shows (*Pilgrimage*) with documentaries (*A Very British Cult*), religious worship (*Songs of Praise*) and comedy (*Rev*).

In summary, travelogues typically fronted by famous figures dominated the most prominent programmes about arts, international issues, religion and belief. ITVX, Channel 5 and Channel 4 had a small number within the top 100, with Channel 4 showing a wider variety of programmes than the other commercial PSBs. iPlayer provided a far greater number and range of programming prominently across all accounts and, whilst these were dominated by travelogues, they also included the widest range of subject matter and format that reflected the larger size and breadth of its catalogue.

Discoverability
how easily can key genres be found

Given the relatively limited prominence of programmes about the arts, international issues, religion and belief on the BVoDs (as we have shown in the previous chapter), it is important to understand how easy it is to find these programmes. This is what is termed 'discoverability'. In this section, we explore three aspects of the user experience that determine how discoverable these programmes are:

- **Categories** - we look at whether programme categories helped audiences to discover programmes from the three genres.
- **Search** - we examine whether the search function accurately found relevant programmes.
- **Trailers and recommendations** - we look at whether trailers were promoting programmes from the genres, and whether they were being recommended in other ways.

Categories

All of the BVoD platforms had their programmes organised according to different categories that could be accessed from the homepage. Not all categories related to programme genre, with some indicating accessibility (signed or audio-described), how recently the programmes were broadcast, the region of origin (e.g. iPlayer had categories for the UK nations), or other descriptors such as archival content or box sets.

The greater the number of categories, the more specificity there is for users looking for particular types of programme. ITVX had just nine categories, Channel 4 had 13, Channel 5 had 18, and iPlayer had 21. Excluding categories not related to genre, the number of genre categories reduced to: ITVX (8), Channel 4 (9), Channel 5 and iPlayer (14).

Limited value for key genres

We found that categories had very limited value in helping users find programmes in the three key genres. For programmes about the arts, only iPlayer had specific Arts or Music categories. Users of the other services had to depend on more generic categories such as Drama, Comedy or Entertainment. For programmes about international issues, religion and belief, there was little help for users of any service beyond very broad categories such as Documentaries and Drama.

Looking under the bonnet of the platforms themselves (as much as we were able), we could see that both iPlayer and Channel 4 did have more complex genre categorisations within the metadata itself. iPlayer had a Religion & Ethics genre and Channel 4 had a sub-genre for performances (e.g. theatre or music), but neither platform made these categories visible to users. The BBC's website had a Programme page that contained 141 sub-genres but, again, this level of detail was not available through the iPlayer interface itself.

**Big Zuu Goes to Mecca
(BBC Two)**

Photo: Adnan Ahmed

Commentary
the view from our partners

A narrowing window on the world

Our public service broadcasters have always provided a window onto the world that enables audiences to understand people, events, cultures, and issues across the globe. This goes beyond the narrow view of the world presented by news and current affairs. We need programmes that provide a broader context and take us into the lived experiences and landscapes of others. In this time of international fracturing, mistrust, and conflict, the need to foster understanding across nations and people has never been greater.

Unfortunately, our PSBs are otherwise detained. At the very time we need them to nurture connections across the globe, our once-treasured institutions are facing a rising tide of global streaming companies and the tempest of social media. As this report makes clear, less commercially-viable genres (arts, international, religion and belief, and others) are being quickly jettisoned or sent to hide down in the hold. A plucky few (i.e. celebrity-fronted travelogues) remain above deck – where they make a valuable contribution – but nevertheless our worldview continues to shrink.

We have seen non-news international coverage decline over many years. Key strands have been cut severely or disappeared entirely, whilst the range of countries and issues that is covered continues to narrow. We have documented this decline and we have challenged the PSBs to meet their obligations. However, since the Media Act was passed in 2024, those obligations have been removed and PSBs can now deliver their remits through opaque platforms that make monitoring almost impossible. Without reports like this, it will be impossible to know whether there is still a window onto the world, how difficult it is to find, and whether anyone is looking through it.

Gareth Benest
Deputy Executive Director,
International Broadcasting Trust (IBT)

Discovering the transformative power of art

People's lives are enriched, and sometimes transformed, by arts programmes from the UK's PSBs. They can inspire someone to pick up an instrument, paintbrush or book for the first time. They can make someone feel connected to an event happening in a theatre, or a field, many miles from home. They can offer a whole new way of seeing the world, other people, or oneself represented.

BVoD services have immense power to improve access to these benefits, and it follows that this could be a golden age for public service media. Yet this report reveals significant challenges to realising that promise – in PSBs' current BVoD practices, and our means of understanding and engaging with them.

The BBC is showing by far the biggest commitment to arts programmes on BVoD services of any public service broadcaster. Only iPlayer offers choices in a wide variety of art forms including ballet, opera, visual art and classical music. Its arts programmes are more numerous, prominent and easily findable.

For arts programmes to be relatively so much rarer, less diverse, less prominent and less discoverable on the other platforms raises questions about what more these PSBs could do to ensure a strong arts strand, and the extent to which the BBC's markedly better performance may be due to its distinct funding model.

It is a great strength of the UK media ecology that we have a range of PSBs which all recognise the importance of arts programmes to their public service remit. Following this report, we urge all of them to review their BVoD strategies to ensure they fully reflect this commitment and actively contribute to more arts programmes being placed, discovered and viewed. We also urge them to make data more openly available, so that the important work of evaluating and strengthening PSM performance can continue, fit for the opportunities, challenges and viewing habits of 2025.

Jack Gamble
Director, Campaign for the Arts

Religiously literate programmes are too valuable to ignore

This report's conclusions that programmes about religion or belief are hard to find - when they exist at all - is disappointing but hardly a surprise. In some ways they reflect the pressures which exist in an increasingly competitive globalised industry. That they persist at all is a reflection of the value audiences put on what they consider to be a key area of PSM.

But more generally the conclusions of this report are disturbing indeed. They suggest that our public service broadcasters have little interest in questions of religion or ethics – a suggestion which has grown over the last two decades and was made manifest when any reference to the genre was dropped from the 2024 Media Act. This is in part the consequence of the decline in organised religion, especially in mainstream Christianity, over the same period - but it's also indicative of a narrowness of vision.

It's not uncommon in our secular nation for religion to be written off as a minority interest. Doing so misunderstands not just how the vast majority of the world's population understands their place in the world but how they understand ours as well. From the Middle East to America, Russia to India, across Africa and around the world, religion or religious identity inform politics, economics, society and culture. The biggest conflicts today – whether between or within nations – all involve clashes arising from what people do or do not believe. Even here at home, the recent debates on assisted dying, abortion and asylum have shown how closely belief impacts our lives.

Traditionally we have depended on our public service broadcasters to provide us with religiously literate and unbiased coverage of these issues. These programmes are essential to understanding who and where we are. Going forward, whether it's via traditional or new broadcast platforms, they remain much too valuable to ignore.

Anna McNamee
Executive Director, Sandford St Martin Trust

/Search

All of the BVoD platforms had search functions on their homepages. To assess how effective those search functions were at revealing programmes from the three key genres, we conducted searches through the three custom accounts. We tested ten relevant keywords per week – generated through our catalogue analysis and from data provided by the project partners – and recorded the total number of results, the number of results relevant to the genre, and the number of results relevant to the specific search term.

Mixed search results

The arts account had the best results from our analysis. It returned seven relevant results for each term used, on average, compared to six for the international account and just four for the account watching programmes about religion and belief. The percentage of relevant results was fairly low for all three categories and, overall, only 11% of results were relevant to the search term used.

There were significant differences between the platforms in terms of how useful the search function was at highlighting key programmes. iPlayer returned a far greater number of results (3,106) and more relevant results (719 relevant to the genre, 500 relevant to the search term) than the other platforms, by a significant margin. In fact, iPlayer returned 64% more results and 278% more relevant results than the other three platforms combined. ITVX returned the next highest number of results and relevant results, followed by Channel 4 and Channel 5 respectively.

iPlayer was the only platform providing arts, religious and international programmes in any significant quantity in our search results, offering six times more relevant results than ITVX and over 20 times more than Channel 5.

Looking at how the genres performed across all the platforms, was also revealing. When searching for international programmes, iPlayer returned more than three times as many results as ITVX, Channel 4 and Channel 5 combined. For programmes about religion and belief, there were ten times more on iPlayer. Searching for arts programmes was more likely to return relevant results across all of the platforms, although iPlayer still returned more than twice as many as ITVX, Channel 4 and Channel 5 combined.

When examining whether search results were relevant, not only to the genre but also to the specific terms entered, the results reduced for all broadcasters but most significantly for ITVX where the number of results almost halved from 114 to 42 overall (or 3% of all search results). Overall, this suggests the ITVX search functionality was significantly poorer than the other three broadcasters.

There are likely three reasons why it was easier to find these programmes on iPlayer. Crucially, its catalogue contained many more relevant programmes. Also, our analysis and comparison of programme metadata revealed higher specificity in the categorisation of programmes on iPlayer. Finally, iPlayer's search function appeared to search a larger number of data points within the metadata.

Search results by BVoD

Legend: Results (blue), Relevance to genre (yellow), Relevance to search term (dark navy)
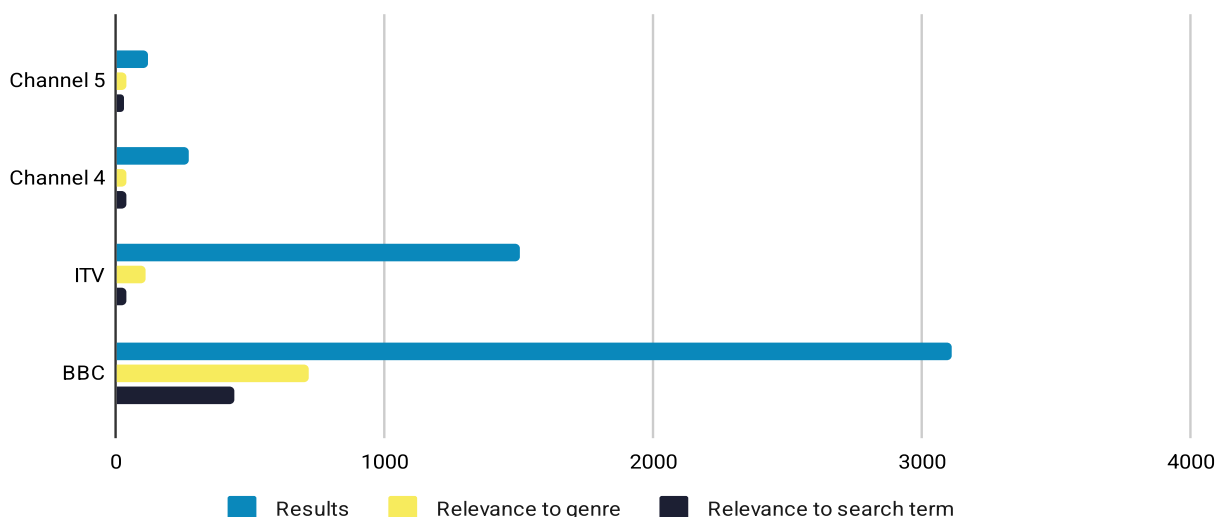
What is being searched?

The metadata associated with a programme contains key information such as: title, description, episode/series number, genre, duration, etc. This data has very important purposes: it populates the user interface with information that audiences need when browsing programmes (e.g. title and description), and allows the platform itself to select items for display among many other functions.

The presence of detailed metadata does not necessarily mean it will be used within the search function, however. Our analysis suggests that iPlayer searched a wide range of metadata which helped to return relevant results. By contrast, ITVX appeared to search within the programme title only, which may account for the high number of false results recorded in our study.

For example, a search for 'Islam' on ITVX returned 21 results. 13 of the programmes returned were episodes from the *Love Island* franchise. The remaining eight were programmes that also had 'island' in the title. None of the programmes listed were about Islam (or anything relating to religion or belief) and appear to have been returned purely because 'Islam' and 'island' have the same first four letters.

By contrast, searching for 'Islam' on iPlayer returned 11 results of which eight were relevant to the search term – including the documentaries *The Shamima Begun Story* and *The Power of Nightmares*, the sitcom *Man Like Mobeen*, and a relevant episode of *The Media Show*. None of the programmes had the term 'Islam' in the title, suggesting that iPlayer was searching a wider range of metadata to surface relevant search results.

Example of searching for 'Islam' on ITVX

Relevance to search term by genre

Legend: BBC · ITVX · Channel 4 · Channel 5
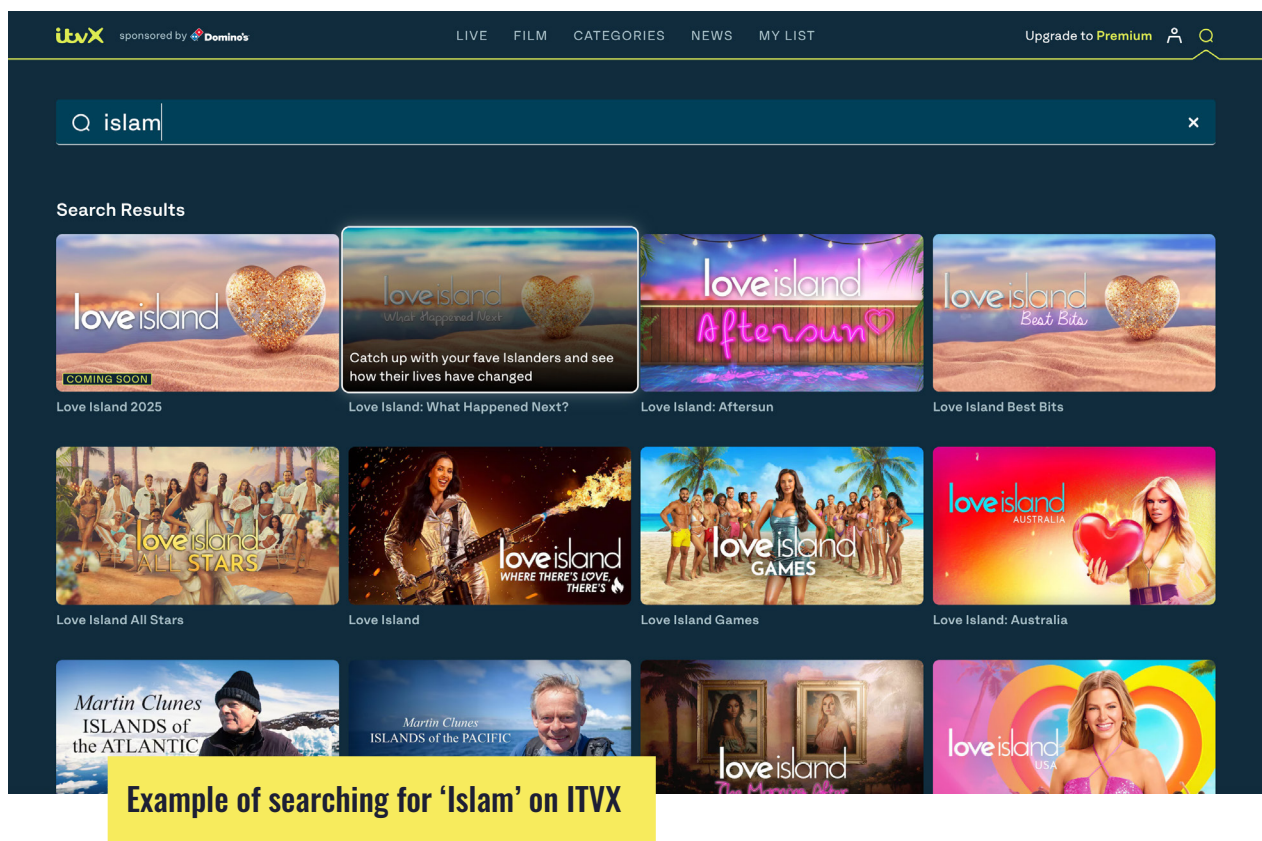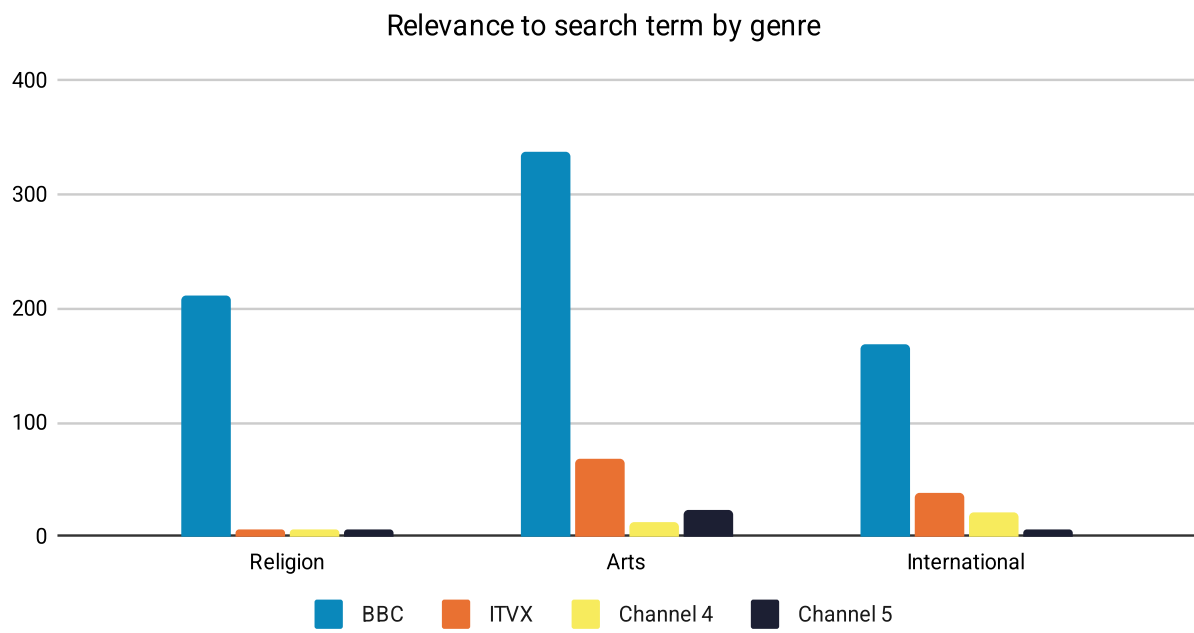
Inside China: The Battle for Tibet
(ITV)

Go Back to Where You Came From (Channel 4)

Trailers and recommendations

Trailers are an important tool for PSBs to make their audiences aware of programmes. These are typically played immediately before a chosen programme starts, often with an option to skip after a few seconds. After a programme finishes, all of the platforms automatically played the next available episode or, if there were no episodes to play, they would recommend other programmes. iPlayer automatically played recommended content.

As part of our research, we recorded what was promoted before/after a programme was played. Analysis of this data reveals that the majority of programmes promoted were already featured prominently on the homepage. We can find no evidence that iPlayer, ITVX, Channel 4, and Channel 5 were doing anything to encourage viewers to watch different programmes through trailers, but were promoting the same programmes across all the key areas. Programmes that were recommended at the end often related to the content just watched. As expected, we found that the personalised accounts (looking only at arts, international and religious content) were recommended other programmes on the subject just watched.

Missing serendipity

Our research found it was highly unlikely that programmes from the three genres would be recommended to viewers not already watching this type of content. The religious account was recommended a few programmes about

international issues, but only because they were relevant to the content watched (e.g. programmes about Gaza were recommended after watching the documentary *One Day in October*). Likewise, we only recorded three instances where content from these genres was recommended on the general account. Two of these were programmes already prominent on the homepage: *Go Back to Where You Came From* on Channel 4 and *Expedition: Search for the Nile* on Channel 5. The other was further series or episodes from the programme (*Grand Designs*, Channel 4) just watched.

It is clear, therefore, that the PSBs were not making use of either trailers or end-of-programme recommendations to broaden the types of content that viewers encountered and recreate opportunities for serendipity typical of the mixed-programme scheduling on linear broadcasting. Rather, viewers were largely being recommended the same programmes that were already highly visible on the homepage.

To conclude, the PSBs were doing little to help viewers find programmes related to arts, international issues, religion and belief. Not only were these programmes rarely prominent in the user interface, they were also difficult to find through the categories provided or through search functions, particularly on the commercial platforms. Furthermore, little attempt was made to promote programmes from these genres to viewers before or after the programmes chosen. Rather, users were being promoted programmes that were already prominent on the homepage, or that were directly relevant to the programmes that they were already watching.

Challenges
how streaming undermines accountability

Analysing the composition and prominence of programmes about the arts, international issues, religion and belief across the BVoD platforms created a number of significant challenges which, unless addressed by the PSBs, makes independent scrutiny almost impossible.

The web-scraping methods deployed in this study required significant time and technical skills. Generating a robust data set was challenging due to the patchy and inconsistent nature of the programme information and metadata held within the BVoD web pages. This challenge would be easily overcome if PSBs used public APIs, or made their non-commercially sensitive catalogue data available for scrutiny by researchers and civil society organisations. In addition, the categories used to organise programmes were too broad and inconsistent for use in identifying programmes from specific genres. This meant that we had to rely on time-consuming manual coding which inhibits the ability to conduct analysis at scale.

Cross-platform (in)consistency

The BVoD platforms had very different ways of presenting and organising programmes, and equally varied approaches to the use of metadata (keywords, themes, duration, location, etc.). Because researchers and civil society organisations do not have direct access to the underlying data systems themselves, bespoke methods must be developed and employed to access the data from the public interfaces. This was not feasible for the analysis of mobile app and smart TV platforms due to the technical difficulty and expense involved, but the existence of online BVoD platform websites meant it was possible for the research team to develop a process of 'web scraping' – programmatically interacting with the web page code – to harvest the data necessary to understand what content is provided and how it is organised.

Web scraping code is tailored for specific web page designs, and so to achieve comprehensive data collection from the BVoD websites, the research team needed to develop two custom scripts for each BVoD; one to acquire data from the catalogue pages (necessary to monitor overall programme availability), and another to analyse the selection of programmes surfaced on the homepage and to collect data about the prominence of these programmes within the interface. This was particularly time-consuming and technically challenging. It is also a fragile method which is hard to reproduce, due to the changing code of the web interfaces as they evolve over time.

Diverse technical skills

Monitoring the BVoD platforms required a team with diverse technical skills including (but not limited to) large data management and manipulation, crafting custom web-scrapers, and coding browser automation scripts. Once developed, these tools cannot be easily shared with other researchers or civil society organisations (to enable ongoing monitoring) unless they too have the requisite technical skills to regularly maintain, tweak, and update the code as the platforms develop and evolve.

Stormzy headlines the Pyramid Stage at Glastonbury Festival (BBC)

Access to data

None of the PSBs provided public access to the data powering their BVoD platforms. The protocols that underpin any form of software or digital experience (known as APIs) used by the PSBs were private; they had chosen not to create open APIs that would enable much easier scrutiny.

API access would provide researchers with more straightforward access to higher quality data. Programme metadata obtained in this way wouldn't be limited to the information visible on the BVoDs – which differed significantly across PSBs – and wouldn't require the building and constant maintenance of custom web scrapers.

In the absence of open APIs, cooperation and data-sharing by the PSBs is crucial for anyone looking to monitor public service media online. However, only two were willing to provide us with any data. The BBC confidentially shared one week's aggregated user interaction data from the iPlayer homepage, which helped us to devise the prominence score, and Channel 4 shared the metadata behind their programme catalogue. We are grateful to the BBC and Channel 4 for providing some data to facilitate the research. However, without data-sharing standards – which could help to compel PSBs to provide commercially insensitive catalogue and content lists (including metadata related to content collation, prominence, and audience behaviour) – such data is patchy and inconsistent, and stymies efforts at monitoring provision.

Lack of data consistency in programme metadata

There were distinct challenges in identifying at-risk genres within the BVoDs. Programmes about the arts, international issues, religion and belief were largely categorised as simply factual/documentary. Everything from international cuisine and adventure travel, through to biographies about fine artists and programmes about hobbies such as reading, were all in the same category. The breadth of programmes assigned to this category was so great as to render it virtually meaningless.

There was also a lack of internal consistency in how programmes are categorised, which further compromised the usefulness of the BVoDs' own metadata. For example, a programme following young people from the Jewish faith, as they navigate various religious and cultural practices (*Growing up Jewish*, BBC), appeared in two categories on the iPlayer: Factual and Religion & Ethics. It was commissioned by the BBC's Religious Commissioning Unit. Meanwhile, another recent commission (from the same team) that explores Palestinian and Jewish perspectives on the founding of the state of Israel (*The Holy Land and Us*, BBC) only appeared in the Religion & Ethics category. The different categorisation – that seemed not to match commissioning basis or programme description – was difficult to understand, particularly as all metadata clearly indicates the geopolitical/current affairs nature of its content.

DIVORCE MAURITANIA STYLE
UNREPORTED WORLD

Unreported World (Channel 4)

We also encountered inconsistency in programme categorisation between broadcasters. ITVX, for example, categorised programmes according to a small number of genres (such as Comedy and Entertainment & Reality), while the iPlayer used a far larger number of genres and sub-genres (such as Politics and History). And while Channel 5 had separate categories for Documentaries, Lifestyle and Real Lives, ITVX combined Documentaries & Lifestyle into one category and Entertainment & Reality into another. This means that broadcasters may have been categorising similar kinds of programmes (such as a reality TV series) in very different ways – as Documentary & Lifestyle, as Entertainment & Reality, as Factual, as Entertainment and/or as Real Lives. This made comparative analysis of the catalogues very challenging.

The inconsistent categorisation both within and across the BVoDs further complicated efforts to analyse the platforms at scale. Because we were unable to rely on the categories used by the broadcasters themselves (to identify programmes about arts, international issues and religion and belief), we had to undertake time-intensive manual coding of the data to identify these at-risk genres.

In sum, it was almost impossible for civil society groups and academics to analyse and monitor the BVoD provision of PSBs due to the technical challenges, time and costs involved. Until this is properly addressed, this will continue to present a serious risk to the accountability and trust of the PSBs, particularly as we move towards a future where BVoD provision is likely to become the primary way in which people access public service media.

Methodology

Catalogue

Between January and May 2025, we conducted a thorough analysis of the programme catalogues contained within the four BVoD platforms studied. This allowed us to assess the presence and the nature of programmes about the arts, international issues, religion and belief.

We developed a custom web-scraping script for iPlayer, ITVX and Channel 5, which collected relevant metadata for all programmes stored in the catalogues, and we ran each of these multiple times within the study period. For Channel 4, we used catalogue metadata shared with us by the broadcaster. Key data points targeted included programme titles, descriptions (multiple descriptions, where available), genres and subgenres as these were essential for identifying programmes from the three genres.

To enlarge our textual corpus and collect more information about the nature of every available programme, we matched the web-scraped programmes with their corresponding titles on IMDb (the Internet Movie Database website), using its public API. Combining the two databases was beneficial for two reasons.

Firstly, there were differences in the detail of publicly available metadata between the BVoD platforms. For example, it was not possible to web-scrape the year of production across all platforms because some did not include this information in the metadata. Secondly, with the exception of iPlayer, the programme descriptions were relatively brief. As IMDb had set variables recorded per programme, we were able to mitigate some of these platform-specific differences by enlarging our dataset to include data from IMDb. There were, however, limitations to this dataset. It is a community database, created by volunteers with very little editorial oversight over data consistency and accuracy. To mitigate this we reviewed programme titles and production year information to verify accuracy prior to using the IMDb metadata.

To identify programmes from our areas of interest, we devised an inductive approach which consisted of extracting a randomised, statistically reproducible and representative 10% sample of the programmes available in the catalogues and applying qualitative analysis based on our project partners' genre definitions to identify programmes within the data. This allowed us to estimate the proportion of total available programming on the platforms.

Personalisation

To assess the extent to which viewer behaviour impacted the types of content presented, we created four personalised accounts for each platform (16 accounts in total). From February to April 2025 we 'fed' these by watching two programmes per week per BVoD. For the three custom accounts this was done by searching for content relevant to the genre of the account, and adding programmes to the platform 'watchlist'. The general account only watched programmes promoted prominently on the homepage. These were selected from the hero board or from the first tile of the first rail on the homepage. This enabled us to assess whether the PSBs made any attempt to broaden the types of programmes recommended when a viewer only watched what was prioritised by the interface.

Where the accounts required demographic data, all of the accounts used a postcode in Leeds (West Yorkshire) and female gender identification. Where date of birth was required, the international and arts accounts were aged between 18-35 and the religious and general accounts were over 35.[8]

Each account was accessed using a Chrome Incognito window to ensure that cookies and search history did not affect the personalisation. When programmes were watched, a note was made of what (if anything) was promoted beforehand and what happened after the programme finished (e.g. did another programme/episode autoplay, were other programmes recommended).

Search

Each week from January to March 2025, we conducted a search for programmes when logged into the genre-specific accounts, using 10 different terms each week for each account. A record was made of the date of the search, the search term used, the number of results, the number of relevant results, and the titles and genres of relevant programmes.

Search terms were based on data gathered through the catalogue analysis and on the expert knowledge of the project partners. The data-derived search terms were based on a cluster analysis of keywords and keyword combinations in programme descriptions and titles identified from the catalogue analysis. The expert-knowledge set of search terms were based on the familiarity and understanding of the content of our programmes of interest. These were derived from the genre definitions and search terms provided by the International Broadcasting Trust, the Sandford St Martin Trust, and the Campaign for the Arts.

Prominence

We developed a custom web-scraping script that automatically loaded the homepages of the BVoD platform websites, logged in to our personalised accounts, and collected key information about the content presented there including programme titles, broadcast dates, rail titles, the position of each item on the page, and the size and shape of the programme images. Using this data, we developed an algorithm to assess how prominent the programmes presented on the pages were, based on how people typically view online information.

The algorithm scores items placed near the top and left side of the screen (where users tend to look first) more highly – an insight drawn from the well-established F-pattern of audience attention – but also considers the size of associated images (larger visuals tend to attract more attention) and whether content is immediately visible when the page loads or if users need to scroll or click to find it.[9]

In designing the algorithm, we took into account both mobile and desktop versions of the platform homepages. To do this, we examined how content is displayed across different screen sizes, using the most common UK screen resolutions identified by industry research. This allowed us to ensure that our prominence-scoring method accurately reflects the user experience across a range of devices, recognising that layout and visibility can vary between mobile and desktop formats.

To ensure the algorithm reflected real-world user behaviour, we used amalgamated user engagement data supplied by the BBC. This data largely supported our use of the positional ranking drawn from theory, but also allowed us to fine-tune the model—for example, incorporating obvious engagement drop-offs in certain areas of the page into the scoring system—ensuring the results align with how audiences actually engage with content.

Our Land: Israel's Other War (ITV)

Life and Death in Gaza
(BBC Two)

Comparability of web analysis with other devices

The methods adopted above have been conducted on web versions of the BVoD platforms, accessed using a laptop. This is essential in order to enable the use of web-scraping. To assess the extent to which the findings are comparable to viewing on smart TVs, we compared the personalised homepage (signed-in) of each BVoD website and a clean account (not signed-in) on a laptop with the same accounts on a Hisense smart TV.

Using a different device to access an account appeared to make little difference on iPlayer and Channel 4. On iPlayer the accounts were identical except for the inclusion of an additional programme on the Recommended For You rail on the smart TV. Accessing Channel 4 on a smart TV or laptop was identical except for the inclusion of a final rail on the laptop that provided links to its Categories.

ITVX and Channel 5 had more differences, largely in relation to the number of tiles and rails. The ITVX accounts had the same programmes in the same order, although the accounts accessed on a laptop had more tiles per rail and more rails than on a smart TV. Channel 5 displayed some differences in the programmes offered and order of programmes in the hero board and in rail 3 (Popular/Popular Now). The accounts on the smart TV had more tiles per rail than the accounts accessed on a laptop.

This analysis indicates that there will be some differences, primarily for Channel 5 and ITVX, between the prominence scores that this report has generated through analysis of the web version and the prominence scores that would be generated if this study had been conducted on a smart TV. These differences are not significant enough to invalidate the findings of the report. However, given that smart TVs are the primary way in which people in the UK watch BVOD, it would be beneficial for this study to be repeated on smart TV interfaces. This would require the cooperation of PSBs to provide access to the relevant data that would not be accessible using the methods developed for this study.

Genre definitions

The following definitions of the three at-risk genres monitored through our research were provided by the Campaign for the Arts, the International Broadcasting Trust, and the Sandford St Martin Trust.

Arts programmes primarily aim to deepen public understanding of, and/or expand public access to, the arts. They fulfil this aim in one of two principal ways:

- By exploring art. These programmes critically engage with artistic forms, practices or figures. They offer insight into creative processes, cultural histories or specific artworks. The purpose is to foster deeper understanding of the arts.
- By presenting art. These programmes present or curate artistic works, such as performances, adaptations or showcases of culturally significant material. The purpose is to provide public access to those works and/or to the shared cultural heritage within which they are significant.

This definition is based on purpose, not format. Programmes are included if the primary subject is an art form, discipline or practice – even within entertainment or competition formats (e.g. *The Great Pottery Throw Down* or *BBC Young Musician*). Programmes are excluded if the arts are secondary or a mere ingredient, such as in a wider-ranging talent show (e.g. *Britain's Got Talent*), fundraiser (e.g. *Red Nose Day*) or celebrity chat show (e.g. *The Graham Norton Show*). The arts are understood here to encompass a broad range of creative disciplines, including the visual, performing, and literary arts, as well as craft and design.

International coverage comprises factual (non-fiction) programmes recorded in, or about, countries outside the United Kingdom and its overseas territories. This includes current affairs, documentaries, travelogues, reality formats, cookery, and some other lifestyle formats. Whilst news bulletins are a key part of any broadcaster's international coverage, they are not included in this study because accurate information about the countries featured is not included in the programme metadata.

We also do not include the following genres/formats: natural history, sports, history (based on archive footage and/or not recorded on location), home renovation, relocation, and holiday showcases. In our experience, these are unlikely to include the voices, lived experiences, concerns, and issues facing people around the world, and are, therefore, unlikely to contribute towards our vision of a globally active citizenry that is compelled to act to address the world's most pressing issues.

Religion and Belief programming refers to the representation or coverage of faith or belief and the exploration of how these impact on people's sense of self and their experience of the world. It can encompass a variety of forms including current affairs, factual, arts, music, drama and comedy as well as 'traditional' religious programming. For those with faith it may provide community and comfort; for those without it can offer insight and new perspectives; for all audiences it supports a better understanding of the complex roles religions play in all dimensions of human experience whether through politics, economics, culture or society.

Glossary

API	Application Programming Interface. A software intermediary that allows different applications to communicate and share data.
At-risk genres	Within this report, this term refers to television programmes about the arts, international issues, religion and belief. They form part of a wider set of genres removed from the public service remit in the Media Act 2024 and, therefore, no longer legally protected.
BVoD	Broadcaster Video on Demand. In this report, we use BVoD to refer to the four main UK PSB video-on-demand services: iPlayer (BBC), ITVX, Channel 4 and 5. To aid clarity and readability, we refer to 5 (Channel 5's recently re-named streaming service) as 'Channel 5'.
Discoverability	The different facets that shape how easy it is for users to find a piece of content.
Hero board	The top rail of a BVoD interface, typically consisting of a full-width image of one programme, with other programmes that can be selected by the viewer or which rotate on a carousel.
Homepage	The first page that opens when you enter a BVoD platform; also the page that loads after a user logs into their account.
Metadata	Information about key data (for example, programme description, running time, broadcast date, genre/sub-genre/category) and the size of the associated image.
Platform	A digital service provided by a broadcaster to deliver content and enable user interaction, including mobile and smart TV apps (this study focuses primarily on websites).
Prominence	The prioritised positioning of content, apps and services on a user interface.
Rail	A row of tiles on a BVoD interface.
Tile	A block of content – usually primarily a clickable image and programme title – on a BVoD interface.
Thumbnail	A clickable image on a BVoD interface; usually the image representing a programme within a tile.
Web-scraping	The process of using software programmes to automate the extraction of data from web pages, usually through accessing the HTML or other core code of the web pages.

Endnotes

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[9] For theorisation of interface prominence see Kelly, J. and Sørensen, J.K. (2021) '"What's on the interface tonight?": A longitudinal analysis of the publishing strategies of public service video-on-demand platforms in the UK and Denmark', *MedieKultur*, 37(70).; Johnson, C. (2017). Beyond catch-up. *Critical Studies in Television*, 12(2); Hesmondhalgh, D. and Lotz, A. (2020) Video screen interfaces as new sites of media circulation power. *International Journal of Communication*, 14. For industry metrics evaluating interface prominence see https://arvester.eu/our-visibility-score-explained.