Review of TV interfaces in the UK market

Current offerings and future developments

Context

The UK TV market is experiencing a period of change and development as the penetration and quality of broadband has improved, providing a high-quality distribution platform for TV and video services alongside DTT, cable and satellite.

Smart-TVs, internet-connected set-top boxes and various types of connected devices are increasingly popular, taking advantage of this high-quality distribution platform to offer users access to a growing range of video services from both UK and international content providers.

The proliferation of new TV and video offerings is contributing to a more complex environment of TV user experiences, aggregation and distribution, with a wide range of features and functionalities emerging (e.g. search, data-driven and/or curated recommendations, personalisation features and voice search).

Although awareness of some new features is still relatively low, early indications suggest that UIs have the potential to change how consumers access and interact with TV and video content. New content discovery models including search, recommendation and personalisation may see viewers move away from traditional, linear EPG models and channel numbers.

Ofcom recognise these developments as important considerations for setting future policy and regulation and engaged MTM to review the main TV and TV-like interfaces available in the market, to better understand their current state of development and how they might change in the future.

Project objectives

The project had five main objectives:

1. Develop a detailed view of the UI design approaches taken by platform operators, device manufacturers and OTT video services, highlighting key features, user journeys and other important functionalities and characteristics.
2. Analyse the availability of PSB streaming services on various platforms and explore the journeys taken to interact with certain programme properties and brands.
3. Identify and explain who controls various parts of the UI, including the design of navigational journeys and ownership of consumption data, providing Ofcom with an understanding of how search and recommendations work within the UI, and whether the UI can be changed by the user.
4. Provide Ofcom with an explanation of the business models, strategies, priorities and motivations of different categories of UI provider, highlighting plans for significant future changes.

5. Provide an assessment of the future of voice navigation and other trends in UIs, assessing their impact on the market and on the business models and strategies of TV platform operators and other categories of industry participant.

Summary of findings

Design

UK consumers access TV and TV-like content through a wide range of UIs, including free-to-air and pay-TV platforms, Smart-TVs and connected devices. Each of these has a distinct layout and design, offering multiple ways to surface content.

UIs often, but not always, include a linear EPG, streaming apps, recommendations sections (curated and personalised) and search functionality (text and voice).

UIs will typically direct users to a home page, allowing them to browse a combination of channels, streaming apps and/or content, or navigate to other pages containing specific UI features (e.g. recommendations). There are two notable exceptions to this:

- Hardware shortcuts may allow the user to bypass the home page and access a specific third-party app directly;
- The UI may default to the third-party app that was in use when the user last ended their session.

The design of home pages varies significantly – at a high level they tend to either be channel-led (e.g. an EPG), app-led (e.g. a third-party app menu) or content-led (e.g. an aggregated content menu).

Although the design of the UI varies significantly by platform, testing identified a number of consistent design features:

- An EPG is available on all of the free-to-air, pay-TV and Smart-TV platforms tested – though the EPG is less prominent on newer pay-TV platforms (e.g. Sky Q);
- Most UIs have a third-party app menu on or close to the home page;
- Most UIs offer text search for channels, apps and content, though the ability to surface content within third party apps tends to be limited and can vary across different apps.

The four main PSB streaming apps (BBC iPlayer, ITV Hub, All4 and My5) are available within the majority of TV platforms. The relative prominence of PSB apps varies across platforms.

Control

TV platforms – whether pay-TV or free-to-air platforms, Smart-TVs or connected devices – generally control the layout of the UI for their services and negotiate deals with content providers on the inclusion and prominence of their content.

These deals can be highly complex with a wide range of variables being negotiated over e.g.: prominence within the UI (e.g. positioning of apps), content availability (e.g. on-demand libraries) and levels of integration (e.g. deep linking and data sharing). Other commercial considerations (e.g. advertising deals) may also factor into these negotiations.

International device manufacturers (e.g. Samsung, LG) often strike global deals with international content providers (e.g. Netflix). alongside national deals with national content providers (e.g. UK PSBs).

In some cases, tech providers may also influence the UI and the availability and functionality of certain features. For example, tech providers prefer consistency and may not tailor solutions to local markets and/or individual TV platforms.

TV platforms have control over search results and recommendations, though some rely on tech providers to deliver these features. Content providers may exert some influence e.g. by negotiating over search rules and proposing content for inclusion in curated recommendations.

Content providers need to share detailed content meta-data to enable their content to be surfaced in search results and personalised recommendations.

Most UIs allow a degree of user customisation, for example changing the order of apps in an app menu or allowing users to highlight content that they like and that feeding into future recommendations.

More broadly, user expectations and feedback influence the design and operation of UIs as TV platforms aim to create an engaging user experience that is aligned with users' preferences.

Business models

The business models of major TV platforms vary significantly, creating different incentives to provide access to content and exert influence on the ways viewers navigate through the UI. In general, platforms are more valuable to a greater number of users if they offer provide access to a broad range of content and a compelling user experience:

- Pay-TV operators invest heavily to provide a broad, and in some cases exclusive, range of content and an engaging experience to attract and retain subscribers. In addition to subscriptions, they generate revenues from advertising and transactions (e.g. pay per view);
- The main UK free-to-air platforms are jointly owned by a mix of PSBs, tech providers and/or pay-TV platforms, delivering the content of their owners and other broadcasters. They are investing in their user experience and on-demand features to attract and retain viewers;
- Smart-TV manufacturers are improving the design and functionality of their UIs and providing access to third party apps to differentiate their products in an increasingly competitive market. Smart-TV platforms generate revenue primarily from hardware sales;

- Connected devices and their associated ecosystems provide access to a range of third-party apps and adopt a variety of business models: pure-play subscription (e.g. Now TV), encouraging subscriptions to associated services (e.g. Fire TV, Xbox and PlayStation), transactional sales and advertising/promotion within the UI itself;
- Tech providers serving TV platforms leverage scale and experience to provide market leading solutions. These services may be part of a broader offering for media clients (e.g. Android TV is part of a suite of Google services including Search, YouTube, Google Play and the Google Cloud Platform).

Future trends

Industry participants expect that the design of UIs will continue to evolve, with emerging features becoming more widespread and UIs becoming increasingly personalised. Some specific predictions include;

- Growing numbers of users accessing content through home assistants and other smart devices, and casting content to TV screens, bypassing existing TV UIs;
- The most prominent areas of UIs shifting from the presentation of channels and apps to the presentation of aggregated content, with increasingly sophisticated search and recommendation algorithms identifying content relevant for users.

While the uptake of voice navigation and search features has been relatively limited within TV UIs to date, many industry participants are bullish about the future of voice search and navigation, anticipating increasingly sophisticated use cases such as intelligent, two-way conversations with viewers.

Industry participants also expect new entrants and changing dynamics in the relationships between TV platforms, content providers and tech providers to influence the evolution of TV UIs going forward. Some specific predictions include:

- International content providers entering the UK market and/or expanding their existing offerings (e.g. Disney, Warner, Apple and Amazon), creating new apps that will compete for prominence;
- Increased aggregation of content within TV platforms, requiring greater levels of integration and data sharing between TV platforms and the third-party apps available within them;
- Growing reliance on international tech providers to support advanced features, which have high development costs and benefit from economies of scale.