Unification of audio-visual content over iTV, a trigger to attract younger generations to the big screIn: the case of Ultra TV

Tiffany Marques

Member of Digimedia, Department of Communication and Art at the University of Aveiro

tiffanymarques@ua.pt

ORCID: https://orcid.org/0000-0001-6662-7998

Rita Santos

Member of Digimedia, Águeda School of Technology and Management at the University of Aveiro

rita.santos@ua.pt

ORCID: https://orcid.org/0000-0001-9741-6210

Jorge Ferraz de Abreu

Member of Digimedia, Department of Communication and Art at the University of Aveiro

jfa@ua.pt

ORCID: https://orcid.org/0000-0002-0492-2307

Abstract

TV consumption habits have changed, especially among the younger generations, due to content fragmentation over several platforms. However, given the comfort associated with large screens, the TV set is still a desired device for watching audio-visual content. In this scenario, an interactive TV (iTV) approach that offers a unification of audio-visual content from different sources can attract younger consumers who are increasingly moving away from this device. Through the analysis of scientific papers with results from Ultra TV (an iTV solution for the unification of linear and non-linear content and sources) this paper aims to reflect on the potential influence of content unification on the behaviours and relationship of younger generations with the large screen. The analysis undertaken showed that a solution which provides comfort and agile access to content from various sources (linear and non-linear TV, Netflix, YouTube, Facebook) using a unique User Interface has the potential to attract younger consumers to use iTV more often.

Keywords

TV-Web convergence; interactive television; television consumption; content unification; audio-visual content.

Resum

Els hàbits de consum a la televisió, especialment entre les generacions més joves, han canviat a causa de la fragmentació dels continguts en diverses plataformes. Tanmateix, com que les grans pantalles s'associen a la comoditat, el televisor segueix sent un dispositiu desitjat per veure continguts audiovisuals. Tenint en compte aquest escenari, un enfocament de la televisió interactiva (iTV) que ofereix una unificació de continguts audiovisuals de diferents fonts pot atraure el públic més jove, que cada vegada s'allunya més d'aquest dispositiu. Mitjançant l'anàlisi d'articles científics amb resultats sobre Ultra TV (una solució d'iTV per a la unificació de continguts i fonts lineals i no lineals), aquest article pretén reflexionar sobre la influència potencial de la unificació de continguts en els comportaments i la relació de les generacions més joves amb la gran pantalla. L'anàlisi realitzada ha demostrat que una solució que ofereix comoditat i accés àgil als continguts de diferents fonts (televisió lineal i no lineal, Netflix, YouTube, Facebook) mitjançant una interfície d'usuari única té el potencial d'atraure els consumidors més joves perquè utilitzin la iTV més sovint.

Paraules clau

Convergència televisió-web, televisió interactiva, consum de televisió, unificació de continguts, continguts audiovisuals.

Introduction

With the proliferation of communication channels and the very ubiquitous nature of technologies and communications, media are omnipresent in consumers' daily lives (Jenkins 2001). However, media consumption has been changing over the years as consumers are seeking content that is more geared to their individual preferences and activities (Fleury 2016). In addition, media and audio-visual consumers are no longer seen as having only a passive role, as receivers of the communication message, but as active users (Sparviero 2019) who interact in a medium full of possibilities.

As Jenkins (2006) states, media convergence is the flow of content across multiple media platforms, cooperation between

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industries and the migratory behaviour of target audiences, all of which play an important role in the very creation and distribution of content. Therefore, this convergence must be examined in terms of both social and technological changes.

In the case of television, the related technologies and viewers' consumption habits have evolved considerably (Abreu et al. 2017; Cesar, Knoche & Bulterman, 2010). The consumer has come to play an active role in their interaction with TV, having the need to have more control over the content made available. The television experience has also undergone changes in the way viewers have access to content on television since these contents are increasingly supported by Video on Demand (VoD) (Vanattenhoven & Geerts 2015) and catch-up TV services (Abreu et al. 2017). TV-Web convergence, more precisely the connection between more conventional TV and the services supported by the Internet, has allowed consumers to search for information, interact with friends or colleagues and select other devices, such as laptops, to obtain complementary information on TV programmes as well as Over-the-top (OTT) content (Hess et al. 2011), providing the creation of new user experiences and consumption more adapted to a logic of anytime, anywhere. In addition, TV-Web convergence has allowed interactive TV (iTV) to support the delivery of various web contents in a logic of unification of content on television. This approach allows users a wider choice of content without switching devices, which can be especially tempting for young users who essentially watch OTT content (Abreu et al. 2019).

As the industry has already noted (Abreu et al. 2018), unification can be an asset, especially at home where the big TV screen is still the dominant device for watching TV content. In addition, if content unification can be supported by a single, unique and consistent user interface for all sources of content, it can be a trigger to attract younger generations used to watching audio-visual content on the Internet (Ericsson Consumerlab 2017) as they will benefit from all the content they want over the big screen without the need to jump from application to application, dealing with an ecosystem with different user interfaces.

In this context, this paper aims to reflect on this hypothesis by analyzing the Ultra TV[1] solution, which combines TV content (linear and non-linear) and OTT content into a single TV interface, through related papers describing its characteristics and the results of its evaluation in a field trial. After this introductory section, the paper is structured as follows: section 2 reflects about content unification on iTV and gives examples of commercial solutions; the consumption habits and behaviours of young users with respect to iTV are presented in section 3; section 4 describes the methodology followed to analyse the Ultra TV case; the analysis of the Ultra TV solution and relevant results are presented in section 5; and finally, section 6 sets out the final considerations.

Unification of content on iTV

Media convergence can be perceived as the phenomenon corresponding to the evolutionary process of the information society (Deliyannis 2016). Castells (2011) recognizes that the growing interaction between vertical and horizontal communication networks does not necessarily imply that mass media are taking on new autonomous forms of content creation and distribution, but rather that the process of convergence gives rise to a new media reality. This process is particularly important for television, since TV-Web convergence has allowed the expansion and dynamization of characteristics such as interactivity, participation and sociability that characterize today's TV (Tuomi 2016). With the dynamization and evolution of interactivity in television, iTV is characterized by benefiting from interactive resources similar to those available on the web which allow users to have greater control and decision-making power over the content watched (Abreu 2007). This behaviour of being able to personally choose the desired content to be watched from a huge variety of sources already occurs both on the web and on TV, and VoD and time-shifting are already common practice for users.

As users see iTV as a technology that provides a dynamic stream of audio-visual content and allows them to select non-linear content or to access live television (Deliyannis 2016), they expect greater flexibility regarding where, when and how to access digital TV-related content (Fleury 2016).

The unification of content approach adopted on the Ultra TV solution makes it possible to offer audio-visual content from multiple sources (OTT and TV) in a simple and unique interface where the user does not need to jump between applications to access the content of his/her preference, thus remaining in the same ecosystem (Almeida et al. 2018). In addition, the possibility of making personalised content available by predicting which content is most relevant for each user according to their watching habits can provide a perspective of a new unification approach.

Currently, the unification trend in the iTV domain is prominent in operator-based and OTT-based commercial solutions, which come close to cutting-edge approaches to unification such as Sky Q (Figure 1), Hulu (Figure 2) and Xfinity.

Sky Q, a unification partnership between Sky and Netflix, provides live TV and Netflix content in a single interface. Users can switch between these contents without any discontinuity, and it is a significant example of how the iTV domain is increasingly interconnected with content from other providers. Hulu has also integrated a new set of channels and live content to its original offer in a graphic interface where the traditional grid was replaced by lists featuring gradients that act as filters (Abreu et al. 2018). Xfinity, namely the X1 box that includes the Netflix application, besides allowing recordings and Time-shift TV also allows access to content by streaming through an integrated content search where the results are presented in a thumbnails grid or carousel navigation lists.

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Figura 1. Sky Q user interface

Source: Express.co.uk.

Figure 2. Hulu user interface
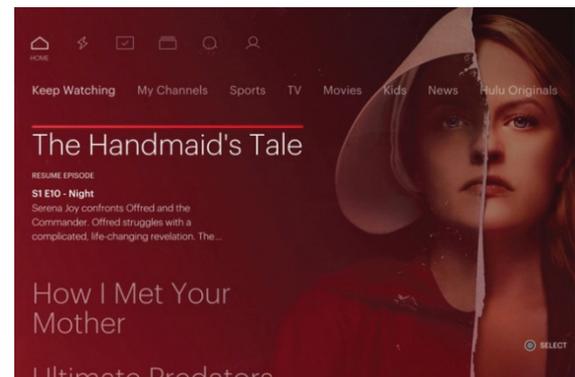
Source: Techhive.com

Young users' habits and consumption behaviours with respect to iTV

Nowadays, TV is no longer limited to live broadcasting. Viewers/users have changed the way they watch audio-visual content, migrating from traditional TV (linear TV) to non-linear TV with the availability of catch-up TV, streaming and VoD services. In addition, they also use web/internet sources called OTT content (Abreu et al. 2017).

However, it is important to consider that users have different preferences and TV consumption needs, as reflected in the report produced by Ericsson Consumerlab (2017). In this report, six types of user groups are identified (considering the weekly time spent on TV and video consumption on various devices): **i) TV Couch Traditionalist:** viewers of traditional television. This is the least representative group, reflecting only 12% of the total number of consumers; **ii) Screen Shifters:** users using any device, anywhere to access TV and video content. They represent 21% of the total number of consumers; **iii) Mobility Centric:** users who essentially use mobile devices to consume audio-visual content. This group represents 22% of the total number of consumers; **iv) Computer Centric:** users who mainly use a computer to consume audio-visual content, either through streaming or downloads. They represent 14% of the total number of consumers; **v) Average TV Joe:** average TV watching time and reduced watching of other video content. This group represents 18% of the total number of consumers; **vi) TV Zero:** users who watch TV and video content in a reduced way. They represent 13% of the total number of consumers.

Regarding younger consumers aged 15-34, they prefer to watch TV and video content on mobile devices and computers, not because they discard the TV set but because they watch the content at the same time as performing other tasks (Nielsen-Company, 2015; Ericsson Consumer Lab, 2017). In this way, it can be assumed that younger users essentially belong to the "Screen Shifter", "Mobility Centric" and "Computer Centric" groups. Nevertheless, these consumers use TV similarly

frequently to watch on-demand content (aged 16-19: 54%; aged 20-24: 51%; aged 25-34: 45%) and linear/live content (aged 16-19: 46%; aged 20-24: 49%; aged 25-34: 55%). Regarding on-demand content, these consumers are more likely to watch User-Generated Content, movies, TV series, sports and other on-demand programmes, and with regard to linear/live content, these consumers are more likely to watch movies, TV series, live news, sports and other events (both broadcasted and live streamed).

Regarding the possibility of a unification of audio-visual contents on iTV (merging the offer of different providers over the same user interface), a study conducted by Abreu et al. (2019) revealed that Generation Z (aged 12-20) and Millennials (aged 21-34) would value the following features: the possibility of having a larger screen and better image quality when watching content from internet sources (e.g.: YouTube, Facebook and Netflix); direct access to internet content on iTV without the need to switch between applications; simultaneous search on different sources; same functionalities and menus to interact with content from different sources/providers; access to a personal area with favourite content and recorded content.

Methodology

The main objective of this study is to contribute to understanding whether the unification of content on iTV, allowed by TV-Web convergence, can potentially influence the behaviours of younger iTV users (aged 12-34) and attract them to the large screen. To achieve this goal, an analysis of contents and papers describing the Ultra TV prototype and its evaluation in a field trial was undertaken (Abreu et al. 2019; SocialiTVChannel, 2019; Velhinho et al. 2019; Velhinho et al. 2020). This prototype was chosen because it aggregates in a single interface, and at the same level, TV contents (linear and non-linear) and OTT contents (YouTube, Facebook and Netflix videos). The maturity of the prototype and the ease of accessing the data also represented criteria for choosing this case.

Ultra TV case

The advanced TV solution developed in the Ultra TV project combines TV programmes and OTT content, making it an integrated experience available to clients of the major IPTV provider in Portugal. The contents (from linear and non-linear TV, YouTube, Facebook and Netflix) are shown in a single User Interface (UI), and content recommendations are also offered considering the user's profile and consumption behaviours. The main screen of Ultra TV (Figure 3) allows users to access the content from a grid-based layout in which it is presented through thumbnails and organized by source and gender. The grid contains buttons that redirect users to specific areas to allow them to discover new content from each genre and source. It also presents a personal area that aggregates each user's favourite content and a resource to continue watching the interrupted content. The grid columns can be turned on and off using the filter feature (Figure 4). In addition, family profiles can be created for collective watching scenarios. Using the main menu, users can manage these profiles (SocialiTVChannel 2019).

This solution presents several functionalities that facilitate interaction: a) in full-screen mode, the user can use the timeline to go back in the content on display so that they can follow its context; b) a contextual menu that allows the user to re-view the content/programme, classify it as a favourite and access extra information; c) side menus that provide a brief description of content watched and suggestions for other related content from other sources; d) a unified search with a predictive keyboard in which the results of live programmes, VoD and online sources are presented simultaneously (SocialiTVChannel 2019).

Figure 3. Ultra TV user interface

Source: SocialiTV.

Figure 4. Ultra TV filter functionality

Source: SocialiTV.

From the above, it was observed that the Ultra TV solution, which combines in a single interface linear and non-linear TV, Netflix, YouTube and Facebook videos which are often consumed by young users, has the potential to attract them to this type of iTV approach. This hypothesis was also corroborated in a field trial evaluation (Velhinho et al., 2019) where 26 participants (most [20] aged between 12-34 years) experienced this unifying and personalizing approach on iTV. Participants mentioned that content unification was a valued feature, since it allows watching and accessing content using a single, simple and cohesive interface. In addition, grouping content from other platforms, such as Netflix, was considered an advantage. Features such as comfort and agile access to content on the iTV interface grid were also mentioned by participants as advantages and motivations for reducing audio-visual consumption on other devices when in a home environment, since they allow a reduction in the effort of interaction without the need to go to the browser or to access different applications.

Final considerations

With an increasing preference of young users for on-demand content, in an "anytime, anywhere" logic, there has been a tendency to use devices other than the TV set (connected to an iTV set-top box) for the consumption of audio-visual content, especially OTT content. This is due to (younger) users' perception of the limitations in the quantity and diversity of content available on iTV, which confirms the need for products that aggregate current and personalized content which attracts more sceptical young audiences to iTV. In this respect, the unification of content on iTV is a possible solution to redirect younger users to this medium since it aggregates, at the same level, television (linear and non-linear) and OTT (YouTube, Netflix and Facebook videos) content in a single and cohesive UI.

By taking the Ultra TV case, an iTV solution for the unification of linear and non-linear content and sources, it was possible to strength this hypothesis. By analyzing scientific papers with results from Ultra TV, it was possible to conclude that the unification of content and personalization of iTV could act as a trigger to attract young people to iTV, since it has the potential to meet the needs of younger consumers by providing personalized content according to the preferences and consumption habits of each user, these being TV content (linear and non-linear) or OTT content (YouTube, Netflix and Facebook videos), and since it allows users to have quick access to content from different sources on the main screen grid with high levels of comfort and not having to use other devices to watch their preferred audio-visual content.

Note

1. <http://socialitv.web.ua.pt/index.php/portfolio/ultratv/> [Accessed on: 15 June 2020].

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