

Funding the digitisation and unlocking of analogue audiovisual public service content: a look into Flanders and The Netherlands.

Cédric Courtois, Guido Ongena, Hannes Cannie, University of Ghent

Abstract

Traditionally, the debate regarding PSB funding consists of a tension between culture and commerce. This discussion has been amplified by the recent trend of digitisation. Yet, this evolution's reach stretches beyond the application of supplementary platforms and channels. In line with the digitisation of audiovisual workflows and the deterioration of analogue materials, broadcasters feel the increasing need of digitising their archives. Unfortunately this is a very costly venture that however holds a vast potential of reinforcing the PSB remit when properly unlocked. This article looks into the funding of two similar PSBs digitisation and unlocking efforts: VRT (Flanders) and S&V (The Netherlands). Despite differing strongly in organisation and scope, both PSBs currently have state aided digitisation programmes, seemingly conform to European regulation. Still, the actual, large scale residential unlocking is yet to take off in both cases. This article emphasizes the complexity of a state aided unlocking in respect to serving PSB tasks and the danger of disturbing the open market. A twofold unlocking is proposed with a commercial, market conform branch and a state-aided cultural branch, comprising less evident, yet valuable content.

1. Introduction

Although its paternalistic edges are smoothed, the core of the 90 year old public service broadcasting (PSB) concept remains intact up until today; that is *'the idea of broadcasting as primarily a social rather than an economic process, as something with moral, cultural, intellectual, and creative purpose and not just a source of mild comment and moderate pleasure'* (Tracey, 1998, p. 19). Combining a large degree of freedom, both financially as with respect to content, PSBs are responsible to reach, inform and educate the general public with high quality content in order to fortify democracy (Scannell, 1990; Windlesham, 1980). Since its first application in Great Britain in the early 1920's, PSB diffused throughout the whole of Europe (O'Hagen & Jennings, 2003). However the past decades PSB in Europe went through a great struggle, being severely pressured from several angles concerning ideological, economic and technological issues. The notion of public culture and the role of PSB were severely doubted. Simultaneously, PSB's financial basis was questioned, especially in the 1980's when broadcasting markets were liberalised (Rowland & Tracey, 1990). This has resulted in a European dual-system broadcasting model consisting of commercial and non-commercial actors, the latter of which are often large public service broadcasters (partly) financed by public funds (Brown, 1996; O'Hagen & Jennings, 2003). This reflects the classic discussion between supporters of the open market principle and those who favour the cultural function of PSB, considering it to

be a public good (Coppens & Saeys, 2006; Harrison & Woods, 2001; Holtz-Bacha & Norris, 2001; Murdock & Golding, 1999).

Commercial broadcasters perceive PSB as a violation of the open market because of its reliance on public funding while taking market share and being largely independent from economically calculated success (Holtz-Bacha & Norris, 2001; Van Cuilenburg & McQuail, 2003). This effect is even reinforced by the additional costs of digitizing the infrastructure, the emergence of new media, the fragmentation of the audience, cutbacks on public funding and a general climate of deregulation (Brown, 1996). Moreover, the fact that PSB increasingly relies on mixed sources of income (advertising revenues next to public funding) and the diversification of activities nurtured a growing sense of discontentment and the filing of complaints by private broadcasters (Ward, 2003). They believe PSB should only deliver niche services that are not provided by private actors (Ariño & Ahlert, 2004). On the other hand, the opposing tendency defends PSBs' specific tasks, which are not believed to be fulfilled as adequately by private broadcasters. It fears open competition due to its supposed negative consequences for society. It is believed it would impoverish qualitative, information content in favour of entertainment, assuming an endangered sense of national culture (Holtz-Bacha & Norris, 2001). Robinson, Raven and Low (2005) state that in a free market environment commercial broadcasters do not meet up to a social optimum, thus speaking of a market failure (Hargreaves Heap, 2005). This optimum is attained by fulfilling valued tasks such as communication for citizenship, children's programming, expressing national and cultural identity and cultural patronage, by which is meant: *'tapping the society's cultural riches, both classical and current ... and making them available to the mass audience in engaging and entertaining forms'* (Blumler, 1993, p. 406). Moreover, it is argued that in advanced societies, PSB explicitly aims at bringing people together in shared experiences, contributing to social cohesion and adding to social capital in various ways (Green, 2005). This justifies PSB as a central and universal activity, rather than a minority one (Ward, 2003), a claim supported by Ariño and Ahlert (2004) who consider the public service and commercial broadcasting dichotomy to be a false one. They even question whether PSB should not be better defined independently, rather than in relation with commercial broadcasting (Ariño & Ahlert, 2004). Likewise, Helm (2005) points out that citizen needs differ from those of consumers.

Due to technological innovation in the past decades, another point of discussion has arisen, namely the digitisation of the audiovisual sector's production and distribution. This evolution comprises a multitude of implications regarding the possibility of digital channels, multi-platform services and personalized content (Leurdijk, 2006). This article describes PSBs' difficulties in relation to digitisation and focuses on the specific case of the digitisation of public service content. As we will argue, a digital migration of analogue content offers tremendous opportunities in repurposing content. Still, digitisation remains very costly, demanding

supplementary funding which is not that evident in the current European broadcasting constellation. This raises the question how it could be financed. Therefore we look into the digitisation and unlocking activities in two regions, namely Flanders, Belgium (VRT) and The Netherlands, and examine how they currently fund their operation as both distinct broadcasters share a geographic, lingual and cultural proximity.

2. Funding Public Service Broadcasting in the digital era

Obviously the transition into digitisation brings about existential questions, forcing PSBs to rethink their working methods, business models and overall roles (Ariño & Ahlert, 2004). For instance, the virtual multitude of channels causes mass linear use to gradually decrease, fragmenting the audience and jeopardizing PSB's general principle of universality, being accessible for every citizen in the country (Hargreaves Heap, 2005; Steemers, 1999). The digital age is claimed to break up collective society in favour of the individual (Picard, 2003). In respect to this view, commercial broadcasters state that PSB should stick to general linear broadcasting, they argue that *'culture, pluralism, open access and universality are the key PSB characteristics under threat by digital convergence'* (Van den Bulck, 2008, p. 344). This is opposed by Harisson and Wessels (2009) who claim that digitisation results in an *'environment that itself helps to stimulate the expression of a pluralism defined by the activities of diverse individuals and groups within their different social, cultural and political experiences and settings'* (Harrison & Wessels, 2009, p. 837). It enables a tailored approach even reaching specific compartments of the shredded overall audience (Steemers, 1999). Murdock (2004) even notices a stronger need for a reinvention of the public domain, given its importance and centrality in every day life. In fact, he conceptualizes PSB as *'a central node in a new network of public and civil institutions'*, an institution that should counter fragmentation. As a trusted brand, PSBs have an essential role for PSB in delivering various pools of news, information and opinions through ICT's (Bardoel & d'Haenens, 2008). The emphasis on alternative forms of delivery, disconnecting PSB from the act broadcasting itself, is shared with Ariño and Ahlert, arguing that *'broadcasting ... is not an end in itself. It is just a technology, and technologies change ... it would be a good thing not to think of broadcasting any more, but rather of content delivery and production as a public service'* (Ariño & Ahlert, 2004, p. 407). As such, in a changing media and communications landscape, it is more appropriate to speak of *public service media*, delivering *public service content* instead of public broadcasting (Steemers, 1999).

Anyhow, the largest constraint is the enormous cost connected to the digitisation of the workflow, replacing the analogue infrastructure, as well as the migration analogue archives while the general sources of public funding remain unchanged. This inertia forces PSBs to further explore sources of supplementary,

commercial income and alternative forms of distribution (Steemers, 1999, 2002). Obviously this amplifies commercial broadcasters' discontentment, claiming these new services to be their natural territory (Harrison & Wessels, 2009). However, according to Smith & Steemers (2007) the anti-PSB lobby is *'broad and largely self-interested, hoping to restrict PSB to a narrow range of selected services and platforms that offer little or no threat to its commercial interests'* (Smith & Steemers, 2007, p. 47). Nonetheless, the commercial broadcasters' discontent regarding PSB's perceived disruptive force on the broadcast market has led to several complaints at the European Commission. For example, private parties in Germany filed complaints about ARD and ZDF's Kinderkanal and Phoenix, two thematic channels. In both cases, the European Commission ruled in the PSB's favour (Wheeler, 2004).

By means of the Protocol to the Treaty of Amsterdam (EU, 1997), the European Union clarified the relation between PSB's and their respective governments. Assigning the definition, organisation and funding of the public service remit to its member states, the European Commission emphasized such funding cannot affect trading conditions and competition in the Community to an extent that would be contrary to the common interest. On the other hand, the European Court of Justice developed a set of four cumulative conditions that have to be met in providing state aid: (a) the public service obligations must be clearly defined, (b) the parameters on the basis of which the compensation is calculated have to be established beforehand in an objective and transparent manner, (c) the compensation should be proportionate and (d) the compensation should be determined on the basis of an analysis of the costs which a typical undertaking would have incurred in discharging those obligations. However, the European Commission's case law as to PSB reveals that up until now this has never been the case.

Nonetheless, article 86,2 of the EC-Treaty (EU, 2002) allows state aid when strict application of the concerning rules would obstruct the performance of particular assigned tasks. The European Commission objectified this possibility by a set of conditions that have to be met in order for a given state aid to be legally acceptable (EU, 2001). First of all it is necessary to establish an official definition of the public service mandate (§43). This definition should be as precise as possible, leaving no doubt as to whether a certain activity performed by the entrusted operator is intended by the member state to be included in the public service remit or not (§45). Second, the public service remit should be entrusted to one or more undertakings by means of official act, such as legislation, contract or binding terms of reference (§50). It is also necessary that the public service be actually supplied as provided for in the official act. Therefore an appropriate authority or appointed body should monitor its application in a transparent and effective manner (§53). Third, in order to satisfy the proportionality test, it is necessary as a general rule that the amount of public compensation does not exceed that the net costs of the public service mission, taking also into account other direct and indirect revenues derived from the public service mission (§71). Member

states have to provide for appropriate mechanisms to ensure that there is no overcompensation (§77). Also with this purpose in mind, the commission explicitly requires a clear and appropriate separation between public service activities and non-public service activities including a clear separation of accounts (§60). These obligations are increasingly translated into the legal framework of a public service contract, offering a transparent look on how PSBs' funding is linked with the attainment of well-defined targets (Coppens & Saeys, 2006).

Apparently the European Union offers a respectable degree of freedom allowing its member states an exception of the general tendency to promote common market principles. By allowing state aid, the Union acknowledges the societal importance of PSB, ratifying it as a cornerstone of democracy (Bardoel & d'Haenens, 2008). The funding of new media services do not obstruct the current arrangements (Ridinger, 2009). However the broadcasting market remains hostile whereas commercial actors are vigilant for possible excesses.

3. Digital migration of analogue public service broadcasting archives

The discussion concerning PSB in a digital context mainly emphasizes the emergence of new (thematic) channels and platforms. Withal digitisation also fosters other, less obvious implications. The histories of PSBs go back for over decades, resulting in a true treasury of cultural heritage caught on film and tape. Unfortunately, these riches stored on discrete analogue and digital carriers are coming of age and are often degrading fast. Repeated projection or playback causes physical problems while in case of film, chemical decomposition (vinegar syndrome) slowly deteriorates the original copies. As a result, together with the images, precious memories slowly fade away. It is estimated that the earliest productions up to material composed in the 1980's are at risk (Kokaram, 2004; Wright, 2001). Simultaneously, original playback devices are becoming obsolete, implicating that *'for archives that want to maintain the ability to use their content ... migration into a sustainable digital form is the only answer'* (Addis, Choi, & Miller, 2005, p. 2).

Notwithstanding the apparent need for digitisation, the massive costs of restoration, ingest and storage systems remain major constraints (film costs up to €2.000 per hour) (Wright, 2001). This leads to the inevitable question who should finance the digital preservation of audiovisual broadcasting archives. Moreover, in line with today's digitisation trend in the broadcasting workflow, more and more broadcasters are in favour of a file-based library system to permanently store their digitised content. Despite the traditional conception of an archive as a last resting place, in a digital context it is technically possible to instantly use archive material within the daily workflow. This holds the potential of shifting the archive from the back into the centre of the audiovisual production chain. Consequently, the unlocking of material

through all kinds of channels and platforms becomes a realistic possibility. Such a reevaluation fits in with PSB tasks of providing high-quality and reliable service of general interest (Monroe & Raboy, 2003; Tracey, 1998). It universally enables citizens to consult high-quality and reliable information and articulations of opinions and criticisms of both past and present. Such an effort holds the potential to benefit the development of a general political and social literacy, nourishing a democratic society by contextualising current events. Moreover, services based on repurposed content offer a whole set of opportunities to develop creative and innovative concepts in unlocking digitised archive content.

Despite the necessity of a digital migration in light of the preservation of audiovisual cultural heritage and the desirability of unlocking it to the public, once again the difficulty of funding arises. Parallel to the general PSB funding, there is a reflexive tendency to shift the burden to the state. In spite of justifying such funding, compatibility with the previously mentioned EC-Treaty (art. 86,2) must be accomplished. The activities of preservation via digitisation and unlocking to the public of the audiovisual archives must officially and explicitly be designated as being part of the public service remit. Moreover, these activities should be explicitly entrusted to the public broadcasting organization by means of an official act. The execution of these activities should be monitored in a transparent and effective manner. Given the huge costs related to preservation and disclosure of audiovisual archives, the issue of financial supervision and transparency will be all the more acute and should be approached very carefully and rather extensively. In the following sections we sketch out the general funding and remit of the Flemish and Dutch PSBs and sort out the current funding and digital migration status of their analogue audiovisual cultural heritage.

3.1 VRT and Dutch broadcasters' mission and funding

Both public service broadcasters were founded in the 1930's and aired their first television programmes in 1950's. Although VRT originally stems from a twofold structure comprising a separate broadcaster per Belgian language community, it has always been a fairly monolithic structure (Saeys, 2007). This contrasts with the numerous Dutch broadcasters. Due to ideological fragmentation the Dutch PSB consists of a number of member-based associations and authorized parties. Currently eight broadcasters offer programmes legitimated by their representativeness of the Dutch population, their number of subscribers or a specific programme assignment.

The Flemish PSB mission is defined in a specific media decree (Vlaams Parlement, 2009) explicating the societal goal of providing a large and diverse public a programming comprising information, culture, education, sports and entertainment while conforming to the highest degree of quality, professionalism, creativity and originality. The decree states that all activities that either directly or indirectly contributes to the fulfilment of these tasks are a part of the public mission (art. 6. §2). These general tasks are made

explicit in a public service contract that is renewed every five years (VRT, 2006). This contract contains properly defined quantitative and qualitative goals. The attainment of these goals as defined in both the media decree as the public service contract are monitored by an external independent agency called the Flemish Regulator for the Media.

The mission of the Dutch PSBs, imposed by the Dutch government, also conforms to general PSB principles. It obliges the PSBs to deliver public media services on local, regional as well as national scale by supplying media content comprising information, culture, education and entertainment through all available channels. To attain their obligations, both VRT and Dutch PSBs receive government funds. In 2009 VRT was granted a dotation of €286m. The basic funding is extended by strictly limited commercial revenues through advertising via radio, general sponsoring and the exploitation of its assets. Currently the ratio of public funds versus commercial revenues in Flanders respectively amounts to two and one third. In The Netherlands, the overall media budget amounts to nearly €900m. 77% is provided by the government funding as 23% originates from advertising incomes. The majority of the budget (79%) is allocated to the national broadcasters (MINOCW, 2008).

3.2 Digital preservation: current status and funding

VRT's audiovisual archive goes back to the day the public broadcaster was founded. However, it took time to professionalize its organisation so not all the broadcasted material is correctly preserved (Biltreyst & Vande Winkel, 2004). The collection consists of numerous formats such as film, U-matic, (digital) Betacam, VHS, etc. and adds up to 330.000 hours of moving picture. At the moment, more than 60.000 hours are digitised. This took place within the context of a complete digitisation of the VRT newsroom workflow and the BOM-Vlaanderen project. Prior to switching to a digital newsroom in 2007, VRT decided to digitise the news items of the two preceding years. The BOM-Vlaanderen project on the other hand, was an initiative of the Flemish government, instigated in 2008 by the former minister of science and innovation Patricia Ceysens (Flemish liberal party). The project was managed by the publically funded Flemish non-profit organisation IBBT (Interdisciplinary Institute for Broadband Technology) and aimed at the set up of an operational demonstrator for a centralised archive containing commercial as well as public content. However, being a multidisciplinary research project, BOM-VL took into account legal, economic and social aspects next to the technical ones. Within the project, VRT digitised 3000 hours of tape. Moreover, it kept the infrastructure operational so up until now 40 hours are digitised daily. In January 2009 the IWT (Institute for the promotion of Innovation by Science and Technology in Flanders, also funded by the Flemish government) announced to allocate €7m to a successor of the BOM-VL project comprising a culture and a media branch, further investigating the properties of a successful unlocking.

At this moment, VRT also has its own digitisation project called DIVA (Digital VRT Archive). The scope of DIVA is encapsulated in the public service contract of 2007-2011 (art. 19-20; VRT, 2006), aiming at a full digitisation of the VRT archive. It is clear the government acknowledges the political, societal, cultural, economic value of its archive (VRT, 2006, p. 24). However, DIVA is not directly funded by the Flemish Government, but by the selling of VRT's own transmission infrastructure (€8m). The operationalisation of DIVA, internally referred to as DIVA II whereas DIVA I was a pre-trajectory characterised by research and planning, took place at the end of 2008. VRT aims to digitise more than 6.000 hours of film and 13.000 of audio by the end of 2012. It is chosen to grant priority to the most precarious material, the most culturally valuable content, material that is soon to be repurposed and content that is used for research and inventarisation (VRT, 2009). As deterioration is variable among materials and the uniqueness and importance of content varies (e.g. quiz programmes or international news footage), not all analogue content shares the same degree of urgency in digitization. Nonetheless, it is clear that DIVA II handles only the tip of the iceberg. VRT is therefore strongly hoping to receive additional government funding specifically for digitisation purposes in the near future. It is estimated that a full digitisation at a reasonable pace would cost no less than €45m.

It is clear the responsibility of preserving its audiovisual archive is uniquely assigned to VRT itself. On the contrary, in The Netherlands this task was given to the Institute for Sound and Vision (S&V). As a result of the Vonhoff Commission, which formally advised the establishment of a centralised national institute, S&V was founded in 1996 by a consortium of four actors (public services' organizational archive, the Film Archive, the Broadcasting Museum and the Foundation of Film and Science). An infrastructure was established to centralise, control and preserve a considerable part of audiovisual heritage in the Netherlands. Currently, the S&V database is expanded daily with a digital copy of fresh public broadcasting content. As stipulated in the most recent Dutch media decree (Kamer der Staten-Generaal, 2008), the PSBs outsource the digitisation of their archives to an external organisation (art. 2.180), annually allocating more than €19m to S&V for this archival task (art. 2.167c). S&V is reviewed every five years by the Arts and Culture counsel and an independent commission composed by the minister of education, culture and science. The digitization of content is a co-operational project given the necessity of the PSBs and S&V to digitalize and integrate their entire workflow. As a result, in 2006 a fiber optic network between the PSBs and the centralized file-based content repository was installed.

In 2007, a consortium of S&V, four other non-profit organisations (the National Archive, the Film museum, the Central Discothèque Rotterdam, the Association of Public Libraries) and a think-tank (Knowledge Land) initiated a digitisation initiative called Images for the Future. While aiming at digitising approximately 137.200 hours of video (30-40% of the total amount), 22.510 hours of film and 2.9m photo's, it is

estimated that at the end of 2010 no less than 55.000 hours of video will be encoded and archived (Gaarenstroom, 2009). The project's budget amounts to €173m and is mainly funded by the Dutch Government (Ministry of Education, Culture and Science); €154m of which originates from a fund financed by the earnings of natural gas in the Netherlands (Fonds Economische Structuurversterking). This is stated to be sufficient due to the fact €19m is internalizable by the consortium. 72% of S&V's budget is allocated to finance infrastructure, digitisation and contextualisation. The rest of this budget is used for business development. The legitimation for government interference is mainly attributed to the market's lack of interest due to the prohibitive costs of digital archiving, being a threshold to invest in such projects. The Dutch Bureau for Economic Policy Analysis (CPB) legitimates such government intervention by emphasizing its potential societal, cultural and economic value.

3.3 Unlocking digital archive content: current status and funding

In its public service contract VRT aims at an unlocking towards cultural and educational organisations as well individual users in a more confined sense. Still, despite these ambitions, up until today the unlocking of digital archive content remains very scarce. Moreover, the used platforms are somewhat conservative. Popular series from the 1950's until today are redistributed through DVD (e.g. 'VRT Classics') and a video-on-demand service called 'Ooit Gemist' ('Ever missed'). Both services, clearly tapping into the affect of nostalgia, are products of VRT's line extensions unit. This unit is responsible for the development of commercial services in line with the networks' identity and mission and usually accounts for VRT's cross medial ventures. More important are project-based initiatives such as '50 years Expo '58', a celebration of the Brussels World Exhibition 1958 50th anniversary, a cheerful event carved into Belgium's collective memory. In this case, mainly drawing upon archive content, VRT fully applied its triple track policy (VRT, 2006): (a) Track 1: the subject is mentioned in a generalist program (e.g. recaps of Expo '58 events at the end of the evening news), (b) Track 2: the topic as the subject of general programme (e.g. extensive documentaries of Expo '58 events and the zeitgeist of the 1950's and '60's, special radio shows, etc.) and (c) Track 3: the topic as the subject of a specialist offer (e.g. a website with all kinds of information and audiovisual material concerning the Expo '58 event, an interactive exhibition, special DVD's, etc.). As such Expo '58 was a fully integrated, cross medial initiative with a proven success: a perfect symbiosis of the VRT archive and its line extensions department, greatly valued by the general public. However, for its accomplishment, the Brussels government had to subsidise VRT to restore and digitise specific archive content.

In the Netherlands the unlocking is performed by S&V. Within the Images for the Future project, a large part is reserved for unlocking digitised archive material (Beelden voor de Toekomst, 2006). The exploitation

is explicitly formulated in the Dutch media decree (art. 2.180; Kamer der Staten-Generaal, 2008). The consortium aims at a contextualised disclosure, developing services for three different target groups: (a) professionals: delivering searchable raw content and playing an intermediating role in clearing copyrights; (b) primary and secondary education: providing a large audiovisual archive called Teleblik, offering nearly 3.000 carefully selected and manipulable fragments for teachers and students, stimulating an active, constructive and creative way of learning; and (c) for consumers whereas the archives are still not easily accessible as content needs to be digitised on-demand after purchase via the S&V web shop. Nonetheless S&V has set up numerous projects investigating opportunities such as unlocking via its YouTube channel that is weekly updated with historic news items, a game engaging consumers to enrich metadata, etc. A subproject within Images for the Future, which is referred to as Open Images, offers online access to a selection of the audiovisual material in the archive of S&V in order to stimulate reuse of content is the main objective of this project. The reuse of content can either be by remixing existing archival content, or entwining the content with other data resources in order to create mashups. Access to the content is based on the creative commons model (Oomen, Verwayen, Timmermans, & Heijmans, 2009). Additionally, S&V participates in the European project VideoActive, which is an initiative to create access to the television archives across Europe and making it available for educational and academic purposes.

4. Discussion: unlocking in the future

It is clear both Flanders and The Netherlands acknowledge the importance of preserving its PSBs audiovisual cultural heritage, despite differences in the practical modalities. In contrast with VRT's monolithic constitution, the Dutch PSB-system is mainly decentralised; a characteristic shared by its broadcasters archives. Sound & Vision's proven efforts to centralise the Dutch PSBs' individual archives, collecting the available public service content, should be seen in this respect. By sharing the same infrastructure, S&V entails an economy of scale. Despite leaping behind in action, the Flemish BOM-VL research project shares a similar aim, trying to unite Flemish broadcasters to engage in a shared and centralised archive. However, in contrast with the Dutch situation, the BOM-VL demonstrator comprises public, regional and private broadcasters. It is clear these stakeholders strongly differ in their needs and objectives. Although, commercial broadcasters are interested in the general idea that centralisation and digitisation reduces the cost. However, a shared unlocking would cannibalize their own brands, in practice the return on investment is negative for these broadcasters. The rationale for this is the core business of these broadcasters. The main purpose of these broadcasters is to produce and air programs. This is in

sheer contrast with S&V where reuse of content is the core business and all parties share a mission and operate within the same logic.

In Flanders, the only significant party interested in a public service unlocking is VRT. Moreover, given the age and diversity of its collection, VRT is the only Flemish broadcaster experiencing a fast and substantial deterioration of its material. Therefore it is surprising to notice the Flemish government has chosen to allocate its small budget to the broadcasting market as a whole. Despite being a formal PSB task, eligible for state aid, VRT is obliged to finance its own digitisation. Nonetheless, subsidising a mere preservation of the audiovisual patrimony paid by the public would not infringe the broadcasting market. The Netherlands on the other hand has chosen to actively support the preservation of its PSBs' audiovisual collection, despite the absence of digitisation as a formal PSB task. This opposition is also reflected in the source and magnitude of the supplied funding. While in The Netherlands the main source of funding is supplied by the Ministry of education, culture and science (next to all kinds of cultural organisations), in Flanders only the department of science and innovation provides. Also the respective sums are beyond comparison whereas the consortium of Images for the Future has €172m at its disposal (over 5 year) while in Flanders the BOM-VL project only received €7m. However, this occurrence is to be attributed to the revenues of the exploitation of The Netherlands' gas reserves. Still, in light of digital migration, a complete digitization is feasible nor desirable, choices need to be made regarding the amount, uniqueness and value of content and the digitization pace.

Still, after the process of digital preservation, the matter of content unlocking emerges. The Dutch and Flemish digitisation efforts manifestly aim at an eventual unlocking of digitized content. However, despite their connectedness, digitisation and dissemination should be separated whereas the scope and market influence of their practical application may strongly differ. Although both regions are enquiring alternative means of on-demand unlocking via small-scale projects on all kinds of platforms, the actual disclosure is limited to DVD, VoD in Flanders and several unlocking initiatives for educational purposes. It is however interesting to contemplate about the scale and the cost of the future unlocking of audiovisual cultural heritage. In light of this article, we therefore focus on the aspect of audience size.

Although a full scale on-demand unlocking would be in line with the principles of PSB, such as delivering high quality content to everyone, several arguments oppose it. When considering archive content consumption to follow a long tail model (Figure 1; Anderson, 2006), only a small portion of content (the head or thick tail) would attract a mass of viewers, while individual items from the long tail would be far less popular. Yet, on-demand, one-to-one services are extremely costly when taking into account overhead costs comprising transcoding, storage, broadband and legal fees. When offering content for free, in which case the government would finance an unlocking, it is necessary to attain a sufficient user mass in order to

legitimate the investment. The most efficient and sensible way to obtain such a critical mass is to offer content from the head of the curve. Still, it is exactly that type of content that bears economic value. Offering it for free would devalue and distort commercial activities of private actors. For instance, a youth series from the 1960's classifies as cultural heritage, reflecting an époque and a shared experience of a generation. For all that, this kind of content is situated in the head and has proven to be perfectly marketable.

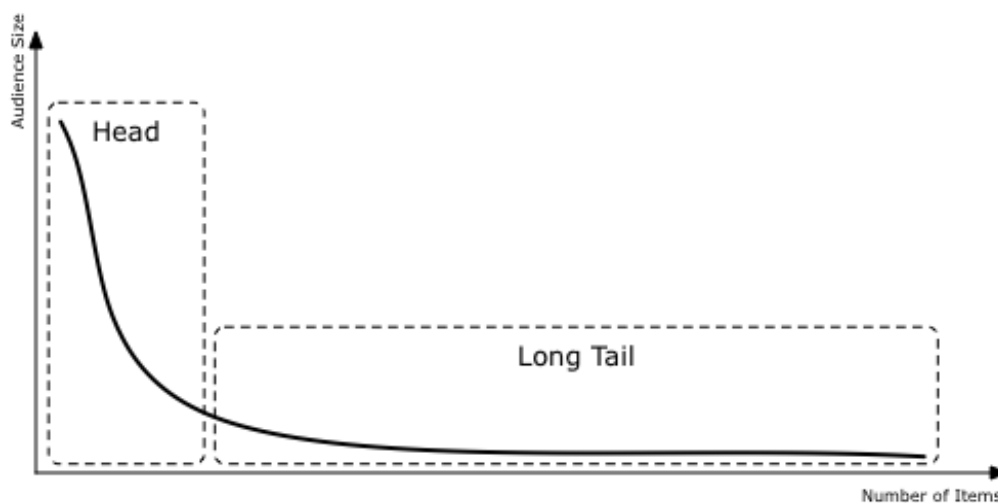


Figure 1: The Long Tail. Adapted from Anderson (2006)

When residential users pay per view, a much larger range of content can be made available. It becomes possible to provide beyond the head, offering content from the left part of the long tail until the point where a break-even is no longer possible. Still, it would take a much broader offer to reach a public that equals the potential of the head. Anyhow, the market is not disrupted as prices are conform with the going rates, although it could cause a financial barrier, creating a system of unequal access. Such a thing would violate the spirit of universality, though being a more realistic approach. Nevertheless, there would still exist a certain degree of competition with private actors by pricing content that is actually digitised with public funds. It seems that again PSBs walk a tightrope between market and culture whereas in contrast with the mere preservation via digitisation, the actual unlocking bears the risk of being regarded market distorting. Therefore it is necessary to cautiously decide what content to unlock at what price.

However, from a technological point of view there are ways to increase the reuse of archival content. One method, which is S&V is investigating, is to implement a recommendation system. Retrieving users

behavioural historical data one can calculate recommendations of other audiovisual content to the users. This principle is widely used among commercial websites (i.e. Amazon.com), where users get a recommendation of items, which are bought by people that viewed the same item. Adding this to the search engine has the potential to increase the reuse of content. A second method, worthwhile mentioning, is the use of fingerprinting. Fingerprinting of footage involves the including of a unique signature to content. This allows researchers to know when and where users have viewed specific footage. Hence, this technique enhances the recommendation engine and increases the searchability of the audiovisual content.

Much depends on the nature of the unlocking, whether it is commercially or culturally inspired. In the first case the service needs to be delivered at a price conform the market. In reality, the majority of this content will originate from the head of the long tail. In the second case, a certain governmental effort might be appropriate. By promoting and offering valuable, yet less known content from the long tail, PSBs are able to fully fulfil their guiding task, drawing upon their respected brands. In this case VRT's earlier mentioned triple track approach offers a sensible perspective. By extending topics in generalist programmes by specific programmes, in their turn referring to a specialist offer via a diversity of platforms, subsets of archive content can be contextualised within the latter. As such, the object of contextualisation legitimates an unlocking when it is in line with the PSBs' cultural obligation as described in its public service contract. Moreover, it is particularly interesting to make notice of the so-called 'culture derogation'. Although compensation for PSB is typically assessed under the previously mentioned article 86 of the EC-Treaty (EU, 2002), the derogation listed in article 87 may in principle also apply in the field of broadcasting. It allows the Commission to regard aid to promote culture and heritage conservation as compatible with the common market where such aid does not affect trading conditions and competition in the Community to an extent that is contrary to the common interest. However, the Commission emphasizes that this cultural derogation can only be applied in cases where the cultural product is clearly identifiable. Moreover, in 2001 the European Commission adopted a Communication on certain legal aspects relating to cinematographic and other audiovisual works. It expresses quite explicitly and unambiguously a consensus among member states on the need to preserve Europe's audiovisual works in view of protecting heritage and to promote cultural diversity (§ 3.1). In this view the Commission currently assesses state aid to cinema and TV programme production under the discussed cultural derogation. As such it becomes possible for governments to subsidise the unlocking of culturally relevant and valuable content, offering it for free or at a very low price.

Conclusion

It is clear that PSB remains a crucial concept in the European broadcasting sphere, valued by both legislators and the public. Despite difficulties regarding its supposed artificial status within the market, PSB's spirit remains intact even in the digital era. Moreover, digitisation brings about a wide array of opportunities to serve the public more diversely. One of these opportunities is the revaluation of archive content, delivering relevant cultural heritage to a broad public. However, the digitisation of PSBs' endangered archives is a precondition. Fortunately, the process of digitisation has taken off in The Netherlands as well as in Flanders. Despite the long way yet to travel and the lingering launch of different services, a vast amount of content is already available for unlocking. Still, the modalities of such an unlocking need to be carefully thought out in order not to violate the fragile equilibrium between PSB and commercial broadcasters. Besides the large investments in providing such services, a complete and comprehensive cost free offer would distort the on-demand audiovisual market. Everything has its price and someone has to pay the bill. Therefore, to fit this complexity, we propose a twofold unlocking with a commercial market conform branch and a state-aided cultural branch. The first track should conform to market principles and should basically fund itself. The second track could fit the perspective regarding market interventions of cultural heritage offered by European legislation. Next to the already employed exceptions for state aid regarding PSB, an appeal to the mentioned culture derogation might offer an opportunity to share cultural riches free (or low) of cost for the audience, flanked by an economically feasible offer at a market conform cost. Moreover, the idea of adopting Creative Commons licenses can play an important role for unlocking the content in a feasible way and can give shape at the democratisation of the audiovisual archive. As such it is clear that there is not a single answer to the question of what should be unlocked and at what price. Nonetheless, the outcome of this exercise is relevant for the shaping of the future broadcasting landscape comprising PSB and the way public service content will be provided and consumed.

References

- Addis, M., Choi, F., & Miller, A. (2005). *Planning the digitisation, storage and access of large scale audiovisual archives*. Paper presented at the Ensuring Long-term Preservation and Adding Value to Scientific and Technical data from <http://eprints.ecs.soton.ac.uk/12231/1/045-poster.pdf>
- Anderson, C. (2006). *The Long Tail*. New York: Hyperion.

Ariño, M., & Ahlert, C. (2004). Beyond Broadcasting: The Digital Future of Public Service Broadcasting. *Prometheus*, 22(4), 393-410.

Bardoel, J., & d'Haenens, L. (2008). Reinventing public service broadcasting in Europe: prospects, promises and problems. *Media, Culture & Society*, 30(3), 337-355.

Beelden voor de Toekomst. (2006). Projectplan en Begroting. from http://www.beeldenvoordetoekomst.nl/assets/documents/beeldenvoordetoekomst_2006.pdf

Bilteyst, D., & Vande Winkel, R. (2004). *Bewegend Geheugen*. Gent: Academia Press.

Blumler, J. G. (1993). Meshing Money with Mission: Purity Versus Pragmatism in Public Broadcasting. *European Journal of Communication*, 8(4), 403-424.

Brown, A. (1996). Economics, Public Service Broadcasting, and Social Values. *The Journal of Media Economics*, 9(1), 3-15.

Coppens, T., & Saeys, F. (2006). Enforcing performance: new approaches to govern public service broadcasting. *Media, Culture & Society*, 28(2), 261.

EU. (1997). Protocol on the System of Public Broadcasting in the Member States: European Union.

EU. (2001). Communication from the Commission on the application of State aid rules to public service broadcasting.

EU. (2002). Treaty establishing the European Community.

Gaarenstroom, P. (2009). Digitaliseringsoperatie Beeld en Geluid vol op stoom. *Masterfiles*, 16(february 2009).

Green, D. (2005). The Public Realm in Broadcasting. In D. Helm (Ed.), *Can the market deliver? Funding public service television in the digital age*. London: Libbey.

Hargreaves Heap, S. P. (2005). Television in a digital age: what role for public service broadcasting? *Economic Policy*, 20(41), 112-157.

Harrison, J., & Wessels, B. (2009). A new public service communication environment? Public service broadcasting values in the reconfiguring media. *New Media & Society*, 7(6), 834-853.

Harrison, J., & Woods, L. M. (2001). Defining European Public Service Broadcasting. *European Journal of Communication*, 16(4), 477-504.

Helm, D. (2005). Consumers, Citizens and Members: Public Service Broadcasting and the BBC. In M. Thompson (Ed.), *Can The Market Deliver? Funding Public Service Television in the Digital Age*. London: Libbey.

Holtz-Bacha, C., & Norris, P. (2001). "To Entertain, Inform and Educate": Still the Role of Public Television. *Political Communication*, 18(2), 123-140.

Kamer der Staten-Generaal. (2008). Mediawet 2008: Staatsblad van het Koninkrijk der Nederlanden.

Kokaram, A. C. (2004). *On Missing Data Treatment for Degraded Video and Film Archives: A Survey and a New Bayesian Approach*. Paper presented at the IEEE Transactions on Image Processing.

Leurdijk, A. (2006). *Public Service Broadcasting dilemma's and regulation in a converging media landscape*. Paper presented at the RIPE conference.

MINOCW. (2008). Mediabegroting 2009. from <http://www.minocw.nl/documenten/74989.pdf>

Monroe, E. P., & Raboy, M. (2003). *Public Service Broadcasting in Transition: A Documentary Reader*. London: Kluwer Law International.

Murdock, G. (2004). *Building the Digital Commons: Public Broadcasting in the Age of the Internet*. Paper presented at the 2004 Spry Memorial Lecture. from http://129.89.70.230/People/type/116/Theory_OtherTexts/Theory/Murdock_BuildingDigitalCommons.pdf

Murdock, G., & Golding, P. (1999). Common Markets: Corporate Ambitions and Communication Trends in the UK and Europe. *The Journal of Media Economics*, 12(2), 117-132.

O'Hagen, J., & Jennings, M. (2003). Public Broadcasting in Europe: Rationale, Licence Fee and Other Issues. *Journal of Cultural Economics*, 27(1), 31-56.

Oomen, J., Verwayen, H., Timmermans, N., & Heijmans, L. (2009). Images for the Future: Unlocking the Value of Audiovisual Heritage. In J. Trant and D. Bearman (eds), *Museums and the Web 2009: Proceedings*. Toronto: Archives & Museum Informatics.

Picard, R. G. (2003). Assessment of Public Service Broadcasting: Economic and Managerial Performance Criteria. *Javnost - The Public*, 10(3), 29-44.

Ridinger, M. (2009). The Public Service Remit and the New Media. In Nikoltchev (Ed.), *Iris plus*. Strasbourg: European Audiovisual Observatory.

Robinson, B., Raven, J., & Low, L. P. (2005). Paying for Public Service Television in the Digital Age. In D. Helm (Ed.), *Can the market deliver? Funding public service television in the digital age*. London: Libbey.

Rowland, W. D., & Tracey, M. (1990). Worldwide Challenges to Public Service Broadcasting. *Journal of Communication*, 40(2), 8-42.

Saeys, F. (2007). Statuut, organisatie en financiering van de openbare televisieomroep in Vlaanderen. In D. Biltreyst & P. Meers (Eds.), *Publieke televisie in Vlaanderen: Een geschiedenis*. Gent: Academia Press.

Scannell, P. (1990). Public Service Broadcasting: The History of a Concept. In A. Goodwin & G. Whannel (Eds.), *Understanding Television*. London: Routledge.

Smith, P. & Steemers, J.(2007). BBC to the Rescue: Digital Switchover and the Reinvention of Public Service Broadcasting in Britain. *Javnost - The Public*, 14(1), 39-56.

Steemers, J. (1999). Between Culture and Commerce: The Problem of Redefining Public Service Broadcasting for the Digital Age. *Convergence*, 4(5), 44-66.

Steeners, J. (2002). *Public service broadcasting is not dead yet – survival strategies in the 21st Century*. Paper presented at the RIPE@2002, Finland.

Tracey, M. (1998). *The Decline and Fall of Public Service Broadcasting*. New York: Oxford.

Van Cuilenburg, J., & McQuail, D. (2003). Media Policy Paradigm Shifts. *European Journal of Communication*, 18(2), 181-207.

Van den Bulck, H. (2008). Can PSB Stake its Claim in a Media World of Digital Convergence? *Convergence*, 14(3), 335-349.

Vlaams Parlement. (2009). Decreet betreffende radio-omroep en televisie

VRT. (2006). Beheersovereenkomst 2007-2011. from http://www.vrt.be/extra/beheersovereenkomst_2007-2011.pdf

VRT. (2009). Wachten kan niet meer: Het VRT Archiefproject DIVA. from <http://www.vrt.be/extra/Div9.pdf>

Ward, D. (2003). State Aid or Band Aid? An Evaluation of the European Commission's Approach to Public Service Broadcasting. *Media, Culture & Society*, 25(2), 233-250.

Wheeler, M. (2004). Supranational Regulation: Television and the European Union. *European Journal of Communication*, 19(3), 349-369.

Windlesham, L. (1980). *Broadcasting in a Free Society*. Oxford: Blackwell.

Wright, R. (2001). Broadcast Archives: Preserving the Future. from http://presto.joanneum.ac.at/Public/ICHIM%20PRESTO%2028_05_01.pdf