Outlook

Entertainment & Media Outlook for the Netherlands 2017-2021

"Data driven user experience takes centre stage"

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About this magazine

We are proud to present our renewed and re-imagined annual Entertainment and Media (E&M) Outlook for the Netherlands. In this edition, we zoom in on the period 2017-2021.

As you all experience in your daily life - both professionally and privately - the pace of change in this industry is not coming to a halt, on the contrary. On top of their focus on two dimensions, content and distribution, parties need to get accustomed with a third crucial dimension: user experience. Excellent content, together with excellent distribution, the right technology, and availability of data are required to deliver the experience users are looking for. In this year's Outlook the importance of user experience takes centre stage.

There are many changes to this year's Outlook. With the convergence of the media landscape our analyses focus on cross segment strategic developments and challenges. The Outlook contains a mix of summaries of the market as a whole, of the advertising market and of video related segments, completed with articles and columns by our PwC and Strategy& experts. A special thanks to Victor Knaap (MediaMonks), Mark Dijksman (oneUp), Mark van de Crommert (Mediasynced) and Jeffrey Duyvesteijn and Sabine Mutsaerts (G-Star RAW) for sharing their views with us in the interviews included in the Outlook.

Detailed segment-specific data and analyses are included in our free-to-access online environment. We encourage you to visit us online at www.pwc.nl/outlook. QR codes in the at-a-glance section will navigate you directly to the relevant section online.

Business-to-business publication is no longer included in our Outlook. As a consequence, summary tables and tipping points have changed compared to previous editions.

What has not changed is the thoroughness of the preparation process. Our views are based on intensive debates, analyses and in-depth discussions with industry experts, including our clients and other business partners. We are grateful for their contributions and we hope that this magazine will contribute to the complex decisions you have to take.

We encourage you to contact us if you wish to discuss how the findings apply to your business. We look forward to hearing from and working with you.

Best regards,

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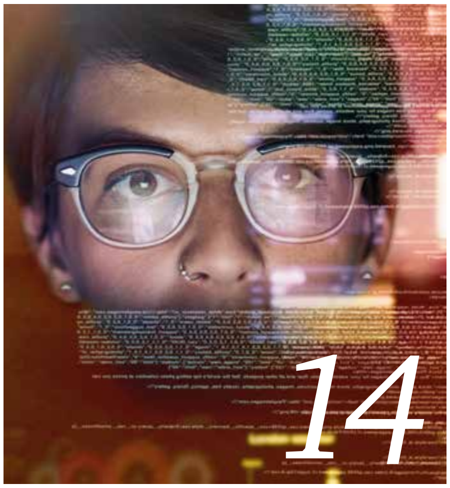

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Move over, content. Move over, distribution.

User experience is king!

By Ennèl van Eeden
and Casper Scheffer

We are accustomed to hearing that content is the crucial factor for any media venture in the digital world, but the reality is far more complex. Rapid changes in technology, user behaviour and business models have created a gap between how consumers want to experience and pay for entertainment and media, and how companies produce and distribute their offerings. To bridge this gap, companies should pursue two related strategies: (1) focus their efforts on building businesses and brands anchored by active, higher value communities of fans, and (2) capitalise on those emerging technologies that delight users in new ways, thus delivering superior user experiences.

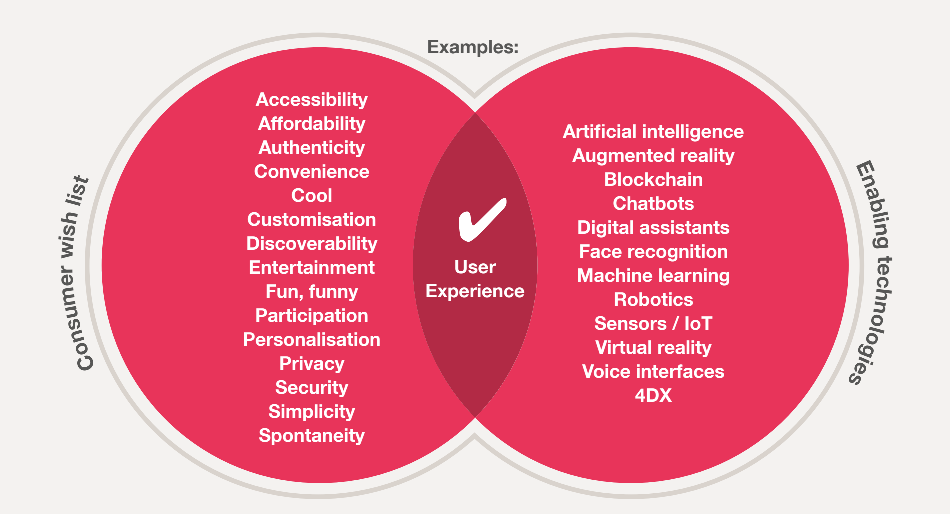
In this article, we summarise some key developments that we believe will ultimately drive further growth in the overall Dutch Entertainment and Media market by about 3.2% per year. These developments boil down to user experience, data and digitisation, combined with a changing regulatory environment. The impact, maturity and pace of these developments differ from one market segment to the next - but the overarching conclusion is that digital keeps winning ground both in advertising as in consumer spending.

What the music industry has taught us about user experience

The tale of digital music download revenue provides us a first insight into the modern digital consumer.

Whereas two decades ago everyone owned physical copies of music records or albums, today it is all about having access to our favourite content. In the past 20 years, we have seen the rise and fall of the music download, which turned out to be an interim technology. What changed? In a nutshell, a form of access emerged that offered a vastly improved user experience: music streaming. Streaming companies,

Move over, content. Move over, distribution. User experience is king



Source: PwC

with Spotify at the forefront, utilise a stickier subscription model by offering customers free access in return for listening to ads, removing the need to engage in multiple micro transactions. Streaming companies also invested in offering a great suitability for listening on home music systems, mobile devices and even in-car. They have also introduced algorithms suggesting music that consumers might like based on their previous choices – a much-needed form of curation, considering that larger streaming companies have well over 30 million songs in their inventory.

But is streaming in its current form the end-game? We don't believe it is. Democratisation of platform ownership, blockchain technology and other trends will change the landscape yet again.

Direct-to-consumer business models enable control over the user experience

To gain the utmost control over user experience, businesses are switching to more direct-to-consumer ("D2C") models. This allows them to control the message and consumer data. With the supply of media growing by leaps and bounds, there is simply too much competition for businesses to survive on the experience of the casual "eye-ball" and other low-value audiences. Developing a fan-centric

Total Entertainment & Media spending (€ millions)

Netherlands	Historical data					Forecast data					CAGR %
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2017-21
Digital advertising	1,169	1,266	1,411	1,531	1,706	1,885	2,065	2,233	2,380	2,500	7.9%
y-o-y growth		8.3%	11.5%	8.5%	11.4%	10.5%	9.6%	8.1%	4,1%	6.6%	
Non-digital advertising	2,067	1,949	1,932	1,878	1,860	1,776	1,759	1,731	1,720	1,696	-1.8%
y-o-y growth		-5.7%	-0.9%	-2.8%	-1.0%	-4.5%	-0.9%	-1.6%	-0.6%	-1.4%	
Digital consumer (inc. internet access)	3,934	4,296	4,721	5,193	5,645	6,039	6,417	6,767	7,109	7,439	5.7%
y-o-y growth		9.2%	9.9%	10.0%	8.7%	7.0%	6.3%	5.5%	5.0%	4.7%	
Non-digital consumer	4,690	4,426	4,283	4,275	4,267	4,279	4,261	4,226	4,179	4,130	-0.6%
y-o-y growth		-5.6%	-3.2%	-0.2%	-0.2%	0.3%	-0.4%	-0.8%	-1.1%	-1.2%	
Total digital E&M	5,103	5,562	6,132	6,725	7,351	7,923	8,482	9,000	9,489	9,940	6.2%
y-o-y growth		9.0%	10.3%	9.7%	9.3%	7.8%	7.1%	6.1%	4.5%	4.8%	
Total non-digital E&M	6,757	6,375	6,215	6,153	6,126	6,055	6,020	5,957	5,899	5,826	-1.0%
y-o-y growth		-5.7%	-2.5%	-1.0%	-0.4%	-1.2%	-0.6%	-1.1%	-1.0%	-1.2%	
Total	**11,860**	**11,937**	**12,347**	**12,877**	**13,477**	**13,978**	**14,502**	**14,956**	**15,387**	**15,765**	**3.2%**
y-o-y growth		**0.6%**	**3.4%**	**4.3%**	**4.7%**	**3.7%**	**3.7%**	**3.1%**	**2.9%**	**2.5%**	

Source: PwC, Ovum

approach will unlock opportunities and engage committed audiences who are more willing to pay for the right content or interface, either in cash, likes, shares, data or just time.

The shift in user experience in the video market has been considerable and accompanied by large investments. Companies like Netflix have created a strong fan base by investing in technologies and content and by attaching their name to hit after hit. They have truly changed the market, and watching video content wherever and whenever one likes is becoming the norm. Telecoms, broadcasters and producers are all working hard to maintain or win control over the customer in this changing market. Instead of extending their licence agreements, content producers such as Disney are launching competing D2C platforms themselves, forcing Netflix to invest in its own content. At local level, Dutch broadcasters are collaborating on local OTT services. NPO, RTL and SBS have joined forces, initially by offering a joint VOD platform and more recently by launching live TV, bypassing local telecoms.

One of the main questions media companies must ask themselves is how consumers select the content they want to see, hear or read now that their access is virtually unlimited. While there is still plenty of room for niche markets, consumers largely opt for mainstream content.

An endless inventory of music, movies and TV shows has led to a growing concentration on blockbusters rather than giving us a broader view. There are still plenty of other ways to find and consume content. New D2C models are being launched in quick succession, but how many subscriptions are consumers willing to enter into? Or will one consolidator win out and seise control of consumer relationships?

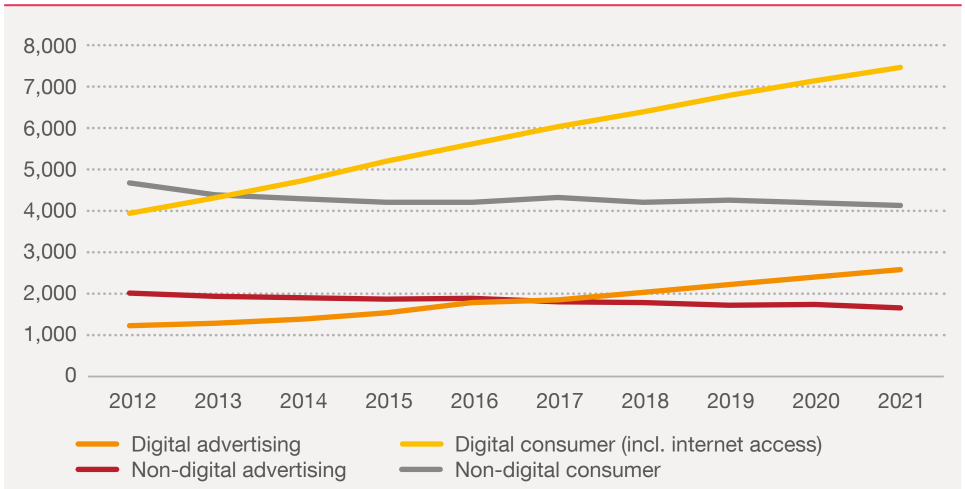
The focus on a user-centric experience that we have seen in the music and video industries requires certain capabilities, and companies will need to optimise operations to cater for this rapidly changing business environment. Organisations must be agile enough to respond quickly to new user preferences, new business models, partnerships and new technologies. Companies need to develop capabilities in such areas as user interface design, customer acquisition/retention, personalisation and customer service as these become more critical for the E&M market to move forward.

Digital spending continues to rise

Not surprisingly, total digital E&M spending in the Netherlands continues to grow and now exceeds non-digital revenue. This trend emerged many years ago and has continued to spiral upwards under the influence of technology. The total Dutch E&M sector is expected to grow at a CAGR of 3.2% through 2021, with digital (consumer and advertising) spending growing at a CAGR of 6.2% per year. Important drivers in digital spending are streaming revenues, internet advertising and internet access spending.

Fast and ubiquitous internet access and appealing mobile subscriptions have allowed digital innovators, both international and home-grown, to provide compelling experiences that consumers are prepared to pay for. With more and more

Total E&M market (€ millions)



Source: PwC, Ovum

"TV broadcasters are feeling the effects of the migration to digital offerings."

generous data plans on offer, consumers are using more apps and going online more while on the move.

TV broadcasters are feeling the effects of the migration to digital offerings. Consumers – especially, but not only, the younger demographics – spend less time watching linear television. This, coupled with other factors such as lagging audience measurability in this sector, is beginning to erode advertiser spending on this medium. For the first time, we are seeing a material decline in TV advertising spending in the Dutch market. As illustrated in the graph, broadcasters have been able to increase total TV advertising revenues compared to 2012 levels. For 2017, we do foresee a €40m - €50m correction.

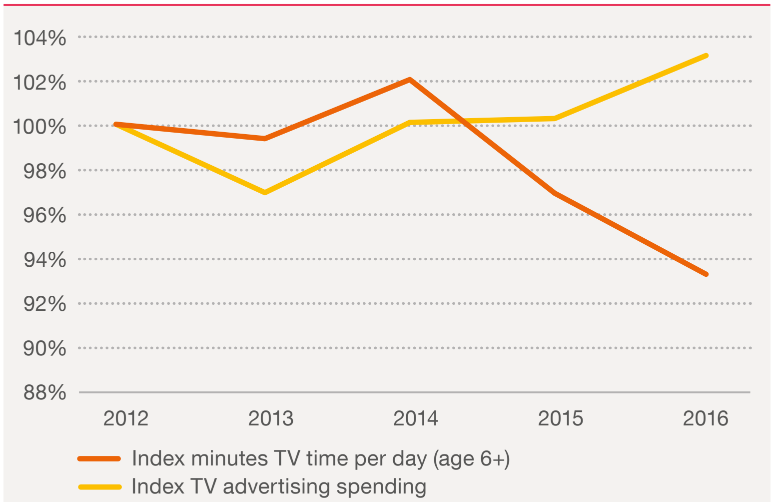
Insights gained through consumer data will change the ad supply and will be used for advanced targeted advertising

A user-centric approach requires companies to really know their customers. For a D2C model to work, data is essential.

The best example is targeted advertising. Targeted advertising can reduce waste in the market because the ads will be more tailored to specific users. This in turn will increase the value of an individual ad, and thus raise prices. To wage the battle against the digital giants (Facebook, Google, Spotify, etc.) and respond more flexibly, strong local players are starting to work together in strategic alliances. For example, Sanoma and media agency GroupM formed a partnership to share consumer data. RTL and TMG are working together for the supply of online video-advertising, which in turn will attract advertisers by offering a broader proposition and richer consumer data.

Gathering data alone is not enough; the trick is to connect and understand the data. This is illustrated by P&G's recent statement that it had cut USD 100m from its online advertising budget without impacting its financial results. Their example shows that the online advertising market is still developing and learning. Targeting in itself does not deliver the full value potential; it is important to consider data interpretation and the true objectives of the advertisement before making decisions or drawing conclusions. In other words, the marketeer and data scientist need to collaborate much more closely to maximise the results of ad spending. It is anyone's guess how using data for targeted advertising will impact total

Advertising spending grew while TV viewership declined
TV time spend per day vs TV advertising spending (index 2012 - base year)



Source: PwC, SKO

advertising budgets once this strategy goes mainstream. So far, all online advertising categories are growing, despite the highly saturated Dutch market.

Insights into consumer behaviour are valuable not only for targeted advertising propositions but also for improving the user experience and developing relationships into a fan base.

> *"Companies are leveraging emerging technologies to enhance the user experience."*

Companies that know how to interpret usage data will gain a better understanding of the quality and value of their content. When does a consumer stop reading an article? How far along into a movie does a viewer lose interest and switch channels/programmes? The answers to these questions will give companies a better understanding of consumers and their own content. Measuring and understanding data will help them improve the user experience.

So far, the global giants continue to dominate the data-driven landscape. For example, Facebook's status as a giant of the digital world is unquestioned as they hit 2 billion registered users in 2017. Facebook's vast array of consumer data will help brands generate customer lifetime value by targeting an audience that Facebook can predict – with a high level of certainty. The European market has enormous potential and is growing; average revenue per user in the US/Canada is $15, whereas in Europe it is around $5. A major concern for other E&M companies, which are already facing tough competition to host advertising, is that Facebook will use its enviable data and innovativeness to monopolise the digital space and become a "one-stop shop" for advertisers. So although internet advertising will continue to grow rapidly, the benefit accruing to the Dutch E&M market will be much less pronounced unless the landscape changes drastically.

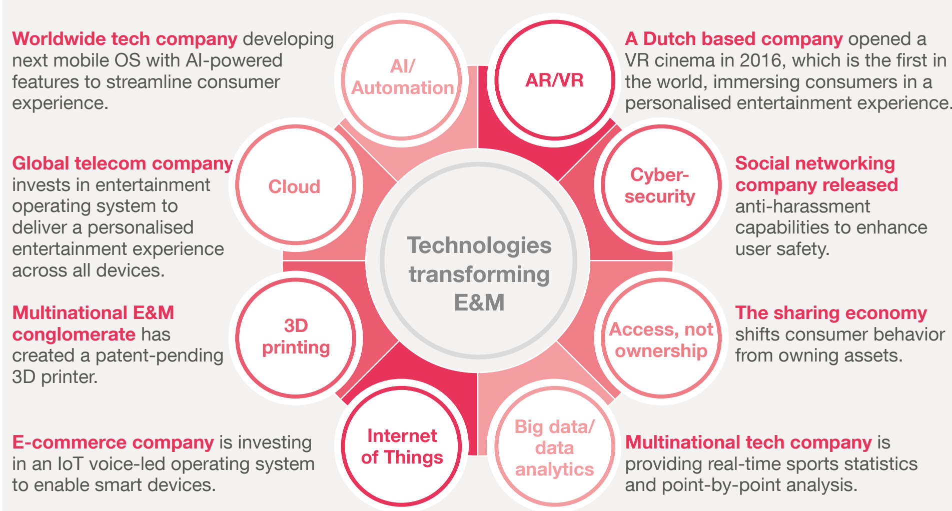
Technological changes accelerate digitisation

Technological changes have had a huge impact on the E&M industry. The list of examples is virtually endless. Below we touch upon artificial intelligence and blockchain, two technologies we expect to impact many E&M businesses.

Today, more and more companies around the world are preparing to take the plunge with AI. AI tools are becoming increasingly affordable and can help remove friction in commerce, delight consumers, and make smarter investment decisions. AI has numerous potential benefits, including the creation of abstract models to recognise media and behaviour from millions of data points. It will allow companies to analyse and process volumes of media that are impossible to handle with traditional methods. AI will help companies present new features that keep consumers on a site or bring them back for more. Media companies shouldn't feel too pressured to invest yet, but they do need to get their data foundation right by building deep data resources and by staying on top of market trends.

Blockchain is another technology that has the potential to disrupt existing business models and enable new ones. This is definitely true for the E&M industry, where intellectual property ("IP") is very valuable but also vulnerable to being copied or pirated without a loss of quality. Only part of the ensuing revenue "leakage" has been recovered through new consumption models, such as all-you-can-consume streaming subscriptions and micro-payments for articles. Blockchain can be extremely disruptive because the technology makes it possible to bypass content aggregators, platform providers, and royalty collection associations and fundamentally reset pricing, advertising, revenue sharing and royalty payment processes. Even more interestingly, blockchain can also shift power to the content owners.

Companies are leveraging emerging technologies to enhance the user experience



Source: Business Insider, Forbes, Variety, International Data Corp., Tech News World, CNBC, PwC

Room for consolidation

Although the number of domestic E&M companies is limited, there is room for further consolidation. A contributing factor is that consumers now have greater access to international services and content. The telecom, TV, radio and newspaper industries have all recently moved towards greater consolidation. The merger between Vodafone and Ziggo has combined the second-largest mobile operator and the largest cable company in the Netherlands. One key strategic objective behind the merger was to develop a quad-play offering that should reduce churn. In the TV industry, Talpa acquired the remaining 67% of shares in SBS (SBS, Net5 and Veronica), allowing it to combine its content and broadcasting assets. In the radio industry, Talpa and TMG combined their radio assets (primarily FM radio stations) into Radio Talpa. This allows them to offer attractive radio content to a wide range of consumer groups, and therefore serve a wide range of advertisers. It also gives the joint venture more scale to invest in innovative technologies. In the newspaper industry, we have seen further consolidation with Belgian Mediahuis acquiring TMG. At the time of publication, Mediahuis held about 70% of the shares. This is not enough to fully integrate TMG and Mediahuis therefore cannot capitalise on the full synergy potential just yet. The magazine industry is undergoing a different M&A trend. Traditional large publishers keep offloading titles to dedicated smaller publishers. Bertelsmann recently announced the potential divestment of its Dutch G+J business.

The regulatory environment is changing constantly

On top of a rapidly evolving technological environment and changing market demographics, E&M companies need to stay abreast of regulatory changes. The regulatory environment – in particular the environment associated with data and privacy – is developing rapidly but often lags behind advances in technology. The result is uncertainty and potentially significant reputational and/or financial risk. A recent example is Google's €2.4 billion fine for "misuse of power", related to their price comparison shopping engine Google Shopping. We list some regulatory developments below.

Regulatory developments impacting the industry

General Data Protection Regulation (GDPR)

As data gathering grows more important, privacy regulations continue to have major implications for the E&M user experience and the role of brands within digital media ecosystems. Companies continue to navigate the fine line between delighting customers and annoying them. The GDPR, due for introduction in May 2018, is meant to improve personal data protection in the EU. It will have huge data security implications for companies that operate in Europe and the rest of the world. Companies must comply with the new legislation when developing new business models and when gathering data.

Roaming

The telecom industry has been impacted by multiple regulatory changes and court decisions. An example is the European Commission's roaming regulation, which became effective in the summer of 2017. It allows consumers to use data bundles abroad and they have greeted it with great excitement. The impact on revenues, costs and capital expenditure differs per telecom provider. The overall expectation is that larger, international telecom providers, like Vodafone, will not be impacted as much as smaller providers, since the larger providers have a network in most of the countries covered by this reform. The new regulation is impacting consumer behaviour abroad and therefore provides opportunities for other companies. One obvious example is to target consumers on business trips or holidays, when they increase their app usage.

Value-added tax on digital products

Another development which could have a positive impact on the industry is the European Commission's proposal to use the same VAT rates for digital and non-digital products. The current Dutch VAT rate on, for example, printed books/newspapers is 6%, whereas a rate of 21% VAT applies to digital copies. This reform could provide urgently needed support for the ongoing development of digital products, including educational e-books. The Commission's proposal was approved by the European Parliament in June 2017. The ball is now in the court of the EU member states, which must approve the reform unanimously. The Netherlands has already agreed to this change.

Reselling of digital products

An interesting debate has evolved around second-hand sales of digital products. Consumers may sell physical products (DVDs, CDs or books) on the second-hand market, but the resale of digital products is currently prohibited. The European court is reviewing the question of who has ownership once a product has been acquired by the consumer. The outcome will be interesting, as it may yet again disrupt revenue models and, for example, result in a digital platform to trade second-hand e-books.

Publishers should stop muddling along and start transforming the sector

By Wouter Poot

Books have always been part of summer holiday packing lists. But today's packing lists also include iPads and laptops so we can play video games and watch our favourite Netflix series or YouTube content. It's all about leisure activities and books and magazines are just one of the options. This means publishers are now competing with a much wider group of companies in the Entertainment & Media sector.

As a result of this drastically changing environment publishers see their sales figures and advertising revenues fall and bestsellers are not bringing in enough to compensate for the losses. This has been going on for years and surely they will survive a few years longer. But to make sure books in all its shapes and forms will still be on the holiday packing lists of future travellers, publishers need to step out of their comfort zone.

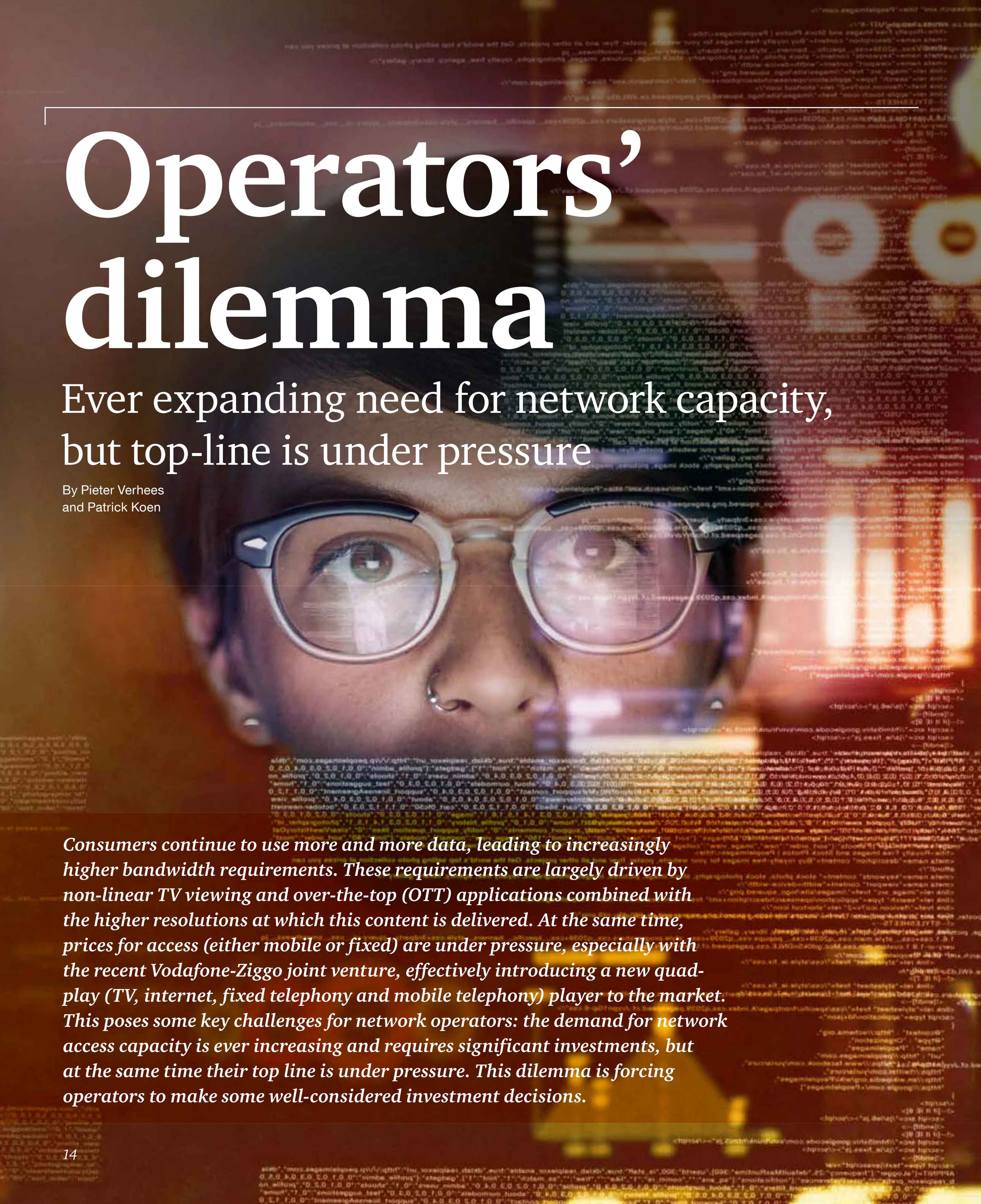
Now is the time for publishers to join forces, reassess customer needs, and change business plans, so they can start facing the new competitors. They must actively fight for their position in the wider Entertainment & Media market. Part of the strategy is to invest in product innovation. Publishers will have to tailor their products and services to the changing needs and habits of their customers. To achieve this they should have an open mind and keep off the beaten tracks.

Focussing on today's consumers we see that their attention span has become shorter and that they are only willing to spend a limited amount of time on reading. This is why publishers should rethink the traditional format of books. To remain attractive to future readers, books need to be more accessible and concise. Of course this touches on a sore spot of culture-loving publishers and editors, but if they want to survive in the changing market it's inevitable that they change their business model and focus on what consumers really want. Besides, if they manage to increase their sales, they will be able to fund the publishing of traditional literary works.

In today's market the switch to digital is inevitable. Educational book publishers are leading the way, since they already made this switch to meet the needs and expectations of the younger generations. Following from the digitisation trend it's an option for publishers to create a platform where all different content types are available. The music industry can serve as an example here. Apple Music, Spotify and Google Play Music offer virtually all available music on one platform in a way that is easily accessible and convenient for consumers.

Changing the business model is not only about digitisation and making print more efficient and profitable, but also includes changing the traditional way of working. For instance, the way publishing contracts are negotiated and the habit of paying substantial book advances. In fact, rethinking the relationship between author and publisher is really necessary.

The world is changing fast and so are the needs and expectations of consumers. I truly believe the publishing sector can transform itself in order to get ready for the future. But the future is starting now and publishers should act rather sooner than later.
My advice would be: stop navel-gazing and look beyond the boundaries of the traditional publishing sector!



Operators' dilemma

Ever expanding need for network capacity, but top-line is under pressure

By Pieter Verhees
and Patrick Koen

Consumers continue to use more and more data, leading to increasingly higher bandwidth requirements. These requirements are largely driven by non-linear TV viewing and over-the-top (OTT) applications combined with the higher resolutions at which this content is delivered. At the same time, prices for access (either mobile or fixed) are under pressure, especially with the recent Vodafone-Ziggo joint venture, effectively introducing a new quad-play (TV, internet, fixed telephony and mobile telephony) player to the market. This poses some key challenges for network operators: the demand for network access capacity is ever increasing and requires significant investments, but at the same time their top line is under pressure. This dilemma is forcing operators to make some well-considered investment decisions.

Customers drive the need for capacity

Consumers continue to use more and more data, leading to increasingly higher bandwidth requirements. The biggest factor is video, especially online video games, non-linear TV and OTT. Internet video has grown rapidly in the Netherlands and the OTT sector is advanced, with Netflix estimated to have passed the 2m subscriber mark in 2016. This is especially true for fixed networks. Mobile, on the other hand, is driven by an ever-growing share of 4G access in combination with increasing and even unlimited data bundles, like the one T-Mobile introduced in January 2017 (with significant effect on base growth) and the unlimited 4G data, voice and text-messaging proposition introduced by Tele2.

The latter two examples point out the challenge which operators face, i.e. the need to be competitive while having to invest significantly in network capacity. The situation seems untenable, with competition putting pressure on prices, leading to propositions that stimulate data usage and in turn force operators to invest in network capacity – all while their top line is declining.

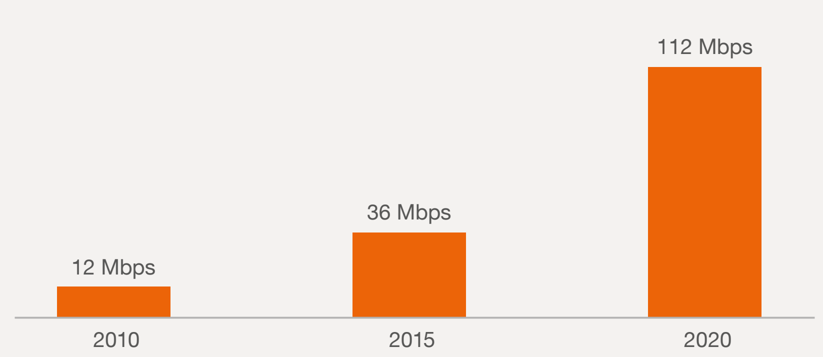
A recent example of challenges in the industry was the problematic launch of HBO's popular show Game of Thrones, which affected fans across the world. The sheer number of viewers on HBO GO caused problems with HBO's servers as well as specific network-related issues in the Netherlands. This example shows how customer behaviour in consumer digital media is changing and the impact on bandwidth and high-reliability access networks.

Intense competition puts pressure on pricing and drives bundling of services

The intense competition in the Netherlands centres on bundles, which are increasingly quad-play rather than triple-play. According to the ACM, by the end of March 2016 there were 674,000 quad-play subscriptions, up by 40.7% in the same period the previous year. The IDC predicts that quad-play subscription penetration in Western Europe will reach 24% in 2020.

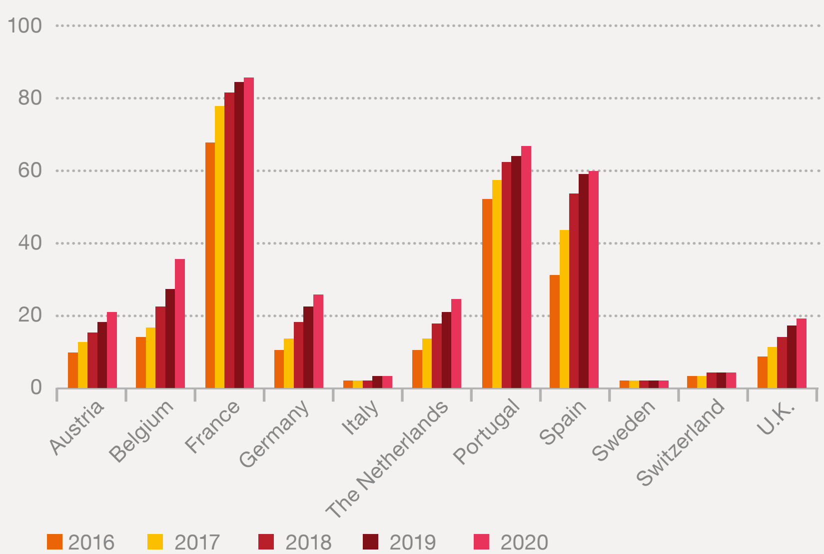
The Vodafone-Ziggo merger brings together the country's second-largest mobile operator and largest cable company. It has created a unique situation in which two operators can offer quad-play services in the same geographical area, competing head-on nationwide.

Western Europe average nominal downstream bandwith per consumer broadband connection



Source: IDC

Western Europe Quad-Play subscription penetration per household by country, 2016-2020 (%)



Source: IDC

Vodafone agreed to divest its fixed consumer business as part of the European Commission's conditions for the merger, with T-Mobile buying this in November 2016. Vodafone-Ziggo now competes head-on with incumbent KPN in the quad-play market, while T-Mobile's acquisition of Vodafone's fixed business will allow it to compete directly with both market leaders. Over the next 12 months, the Dutch market will continue to progress towards quad-play and content-focused high-value services for end users.

Competition in the mobile market is likely to focus on increasingly large data bundles, with both Tele2 and T-Mobile offering ever-larger allowances. In January 2017, T-Mobile announced a new unlimited data subscription, potentially triggering further commoditisation and price pressure.

It is clear that operators need to be and are trying to stay competitive by complementing their subscriptions with third-party content and services (such as KPN including Spotify in some of its subscriptions). Expanding these propositions has consequences for both margin and capital expenditure – they stimulate the use of data, e.g. by adding streaming services, and thereby also effectively lower margin on the product. The business case for this is to reduce churn and thus increase customer lifetime value – which makes sense in a competitive market. However, KPN's new proposition line-up clearly shows a decoupling of (third-party) premium services. They are evidently going in a different direction, even though increased speeds, data bundles and quad-play benefits remain intact.

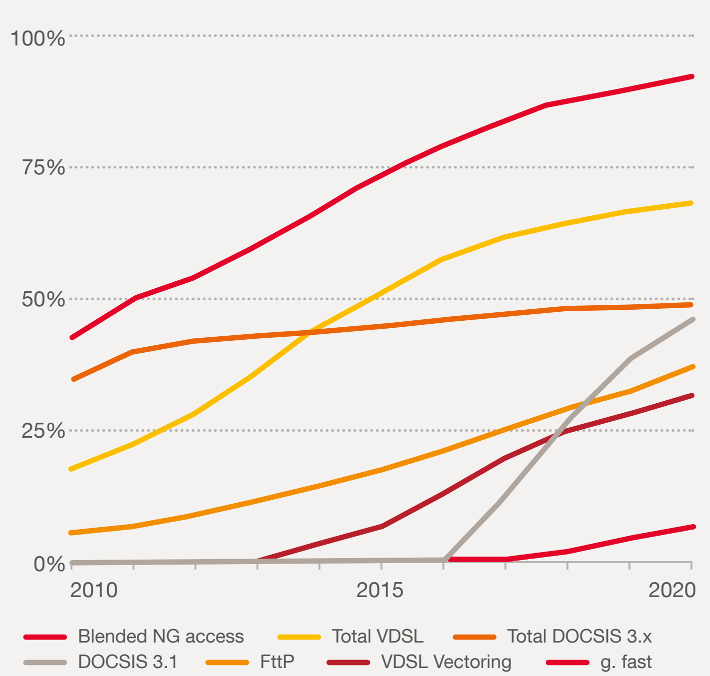
Availability of Next Generation (NG) Access services

The ever-increasing data usage is possible in part because high-speed mobile internet connections in the Netherlands are growing at a faster rate than in Western Europe as a whole.

"Quadplay subscription penetration in Western Europe will reach 24% in 2020."

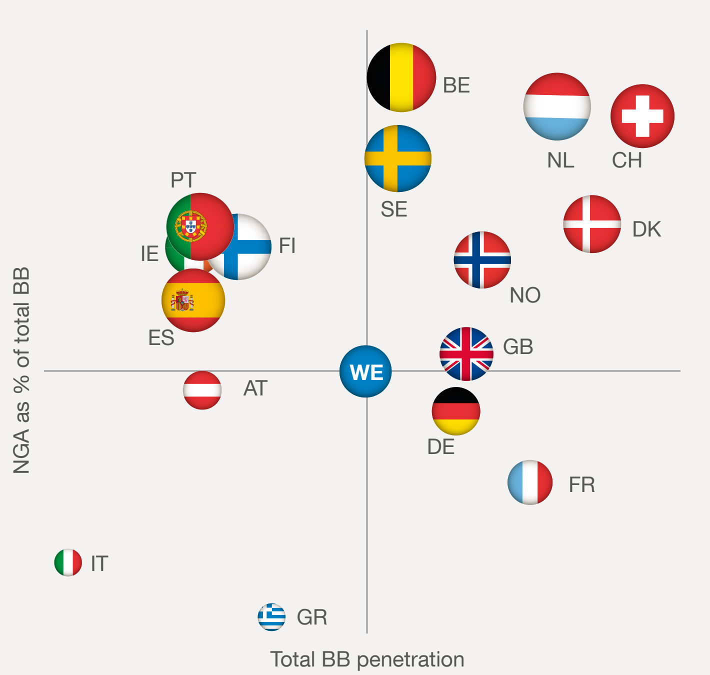
Given the top-line pressure combined with bandwidth requirements, operators need to make smart choices about how and where to invest in capacity for next-generation access services. For fixed access networks, KPN's approach is to invest in both DSL upgrades (e.g.

Western Europe availability of next generation access (% of households)

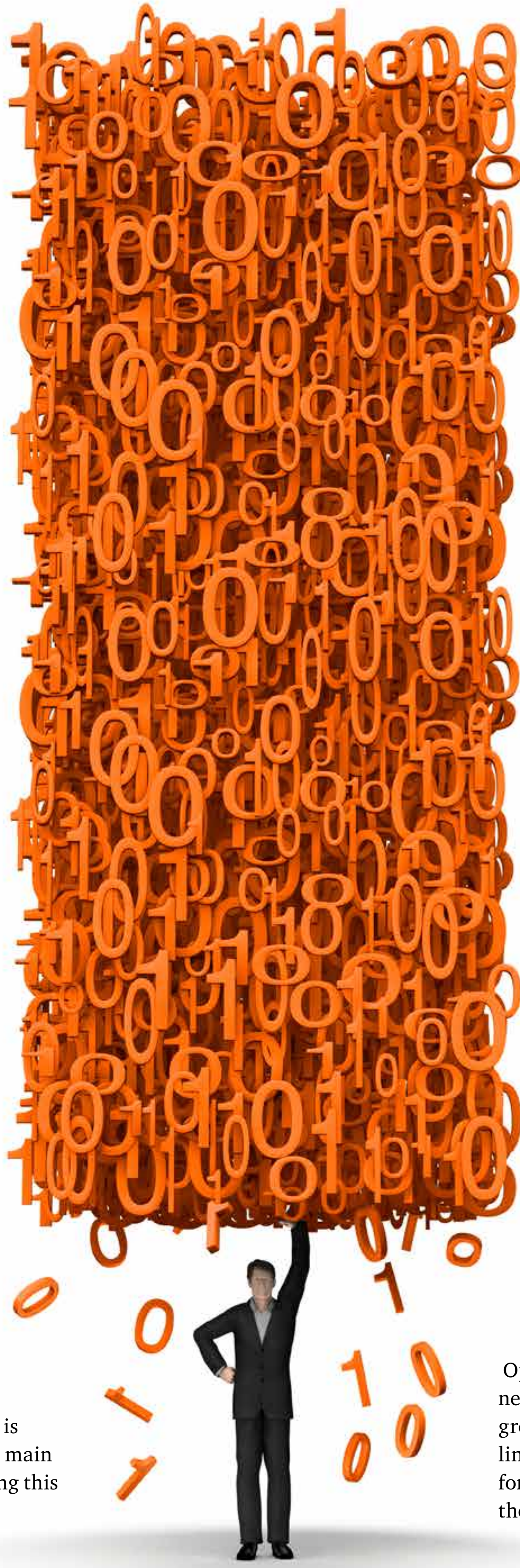


Source: IDC

Western Europe next generation access market snapshot, 2016



Source: IDC



vectoring and bonding) as well as the ongoing rollout of fibre-to-the-home ("FttH") to provide high-speed broadband connections. The incumbent now provides broadband internet on copper using VDSL2, pair-bonding, vectoring and bonded vectoring, with potential plans to move into bonded vectoring plus (up to 400Mbps) and NG.PON (up to 1Gbps) as the latter two are mentioned in its own Q2 2017 presentation.

Even though the Netherlands is far ahead in Europe in rolling out copper upgrade and NG access, this is a Europe-wide trend.

The challenge going forward

For fixed access spending, we know FttH is (or can be) much faster and more reliable then DSL. From a financial point of view, however, it makes sense to invest in DSL upgrades to limit capital expenditure. Using existing infrastructure and technology for high-speed consumer internet services is clearly much more economical at this point in time, even more so when we consider that cable operators can also use existing cable networks and increase capacity by upgrading to DOCSIS 3.1 and 3.1 full duplex (making symmetrical upstream/downstream possible), with significantly lower investment in the access network than rolling out a new fibre footprint.

The big challenge for mobile is to provide sufficient capacity in dense urban areas where data consumption is high (specifically at peak hours). Two main factors come into play when addressing this challenge: (1) the role of small cells, (2) the role of 5G.

Small cells (i.e. low power radio access nodes with a range of 10 meters up to few kilometres) will play a key role in access spending by providing capacity in dense urban areas where data usage is high or very high. It gives operators a means to increase capacity locally at relatively low cost by eliminating the need to set up a macro site. Both KPN and Vodafone are known to be rolling out small cells in specific locations in the Netherlands and the rollout will likely gather momentum over the next years – potentially in combination with 5G in the longer term.

5G is the other factor with the potential to solve local capacity challenges. Operators will likely not aim for national 5G coverage; this would be very expensive due to the high frequency band that is used and not needed.

In summary

All in all, the Netherlands is a competitive market at the forefront in Europe in terms of bandwidth and NG access. But with the Vodafone-Ziggo merger creating a new quad-play player that is putting more pressure on prices and driving up competition, the need to make smart choices in access spending has never been so important. To reduce (or at least limit) investments in fixed network access, operators are avoiding or limiting the need to rollout completely new footprints, either by upgrading DSL or moving to DOCSIS3.1 along with rolling out fibre. In mobile access, operators look to small cells and 5G to fulfil their capacity needs.

Operators must invest continuously in network capacity to enable the exponential growth in data usage, even though their top line is under pressure. This has been the case for many years and is expected to remain so for the foreseeable future.

Data as a canvas to and optimise custo

Victor Knaap is 'Main Monk' at global digital production company MediaMonks. Creating high-level digital content MediaMonks pushes creativity to the limit and uses technology to its fullest potential.

write stories mer experience

Victor Knaap discusses what he sees as the basic principles of successful digital content production. He reflects on the market that is rapidly changing due to technological developments and the influence of powerful digital players like Google and Facebook.

MediaMonks uses data as a starting point for content production. “We see data as a canvas to write stories,” says Knaap. “When you’re able to intimately understand your audience and their passion points, it’s possible to deliver dynamic content that’s personalised, relevant and engaging. For example, within a single campaign there can be one main story and several parallel story lines with tailored nuances such as video, copy and images tailored to the individual’s interests.”

Hero, hub, and hygiene content

“With the proliferation of so many new, digital channels, the traditional approach of brands working directly with agencies on the ‘big idea’ and leaving creative production to the end, has been flipped”, says Knaap.

“It no longer makes sense to spend the bulk of the budget on TV commercials. Today, through smart and integrated production, we push to develop the hero, hub and hygiene assets at the same time. This not only ensures the big idea is given longevity and will work across multiple platforms, but that it contains differentiated, local nuances too.”

MediaMonks takes an integrated approach to production, designed to ensure a more coherent and effective brand story across a brand’s entire digital landscape, but also to drive down the cost per asset through capturing all content during a single shoot. Along with the big idea, the production company creates hub content, such as recurring blog posts or videos. It also creates hygiene content, which is information users actively search for, such as ‘how to videos’ or branded recipes.

“We first look at all the different touch points, both owned and paid, and then think about how to stretch the big idea across the entire digital landscape,” says Knaap.

“In our industry we observe that brands are doing their best to meet the exponential demand for more content, but the truth is, you can’t simply repurpose content. Mobile users expect vertical videos, while Instagram stories need to pack punch within sixty seconds, and banner ads need compelling copy completely unlike the conversational tone that works on Facebook. Our focus is to make a whole range of specially created assets specially tailored to each platform.”

Run your content as a start-up

Creating smart content that can be optimised continuously is part of MediaMonks' creed: define, design and optimise fast. Optimising also means constantly monitoring content performance on all the different touchpoints and making adjustments where necessary. "Why not create three versions of a video and see which one works best?" Knaap asks. "Spending large amounts of money on a single campaign and then waiting a month or so to measure the results doesn't make sense. No start-up in the world would do this. Instead, start-ups are all about continuously monitoring and optimising performance and having the agility to alter the course if necessary. This is how a media campaign should be run. In other words: run your content as a start-up!"

The future of television

Knaap doesn't write TV off completely and says that he sees this device becoming more and more intelligent in the future. However, he says, making targeted TV ads is not yet possible, because it's still difficult to monitor TV viewership data. "Getting the right content to the right person at the right time is what we need. I think the changing role of TV in the advertising market justifies a change of roles in media buying. Online media buying always followed the example of TV media buying, but today it should be the other way around."

"Perhaps the cable companies hold the winning cards in the Netherlands."

"In this context," he says, "perhaps the cable companies hold the winning cards in the Netherlands. This is because traditional TV channels often don't have a direct relationship with consumers and face a challenge to create a strong community around them."

"I think big live shows, news programmes and sports events on TV are still relevant and will continue to be so in the future, including the accompanying advertising space. Going forward, I predict all other TV advertising will be programmatic."

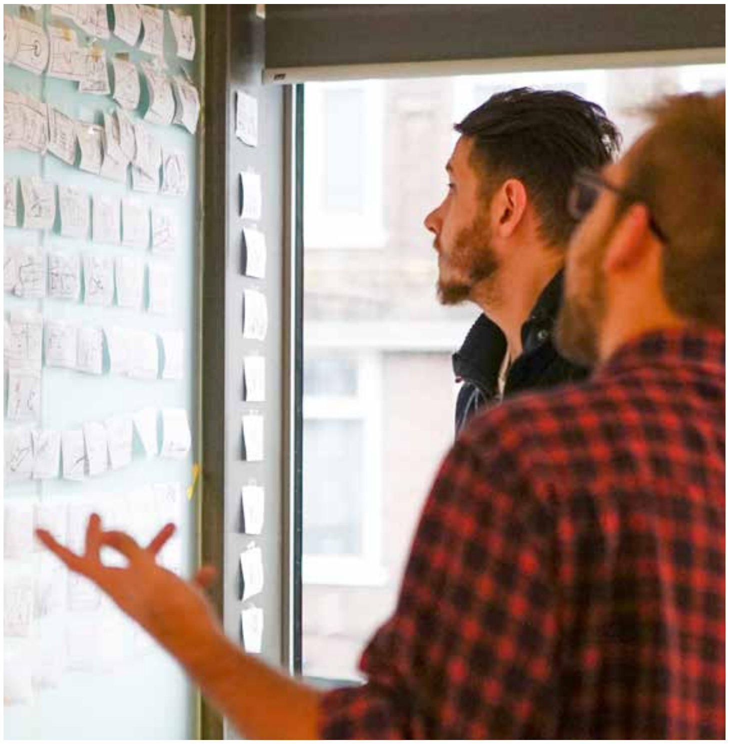
Dot-com revival

Knaap also foresees a major shift towards the central role of websites for brands to present themselves. According to a recent Nielsen report, branded websites are the second most trusted advertising platform, after word of mouth.

He comments that this is because brands currently can't convey their brand message on third-party sales platforms, such as Bol.com and Amazon, as they put all competing brands in the same framework which means they're no longer able to distinguish themselves.

"For a website to be effective," he explains, "brands should continue to tell the same story across all platforms. Right now, potential customers often lose the engaging storyline that's lured them in from a social platform such as Facebook or Youtube, as when they get to a brand's website, all they see is a corporate ecommerce platform."

Knaap says that with today's technologies and insights, there's no reason dot-coms can't be as effective as the social post or video that sparked the interest of potential customers to begin with. "However," he says,



"to transform dot-coms into a flagship experience, they need to be given the same ongoing dedication as carefully crafted campaigns."

He says that in 2017, consumers expect the same personalised brand experience on a website as they do on social media, and as a result, if consumers are turned off at the final point of transaction, this is a huge business opportunity wasted.

Access to a global audience

Today, about 80% of the digital media spending goes to digital giants, such as Google and Facebook, which raises concerns about the outflow of money from the Netherlands. However, Knaap is looking on the bright side as he says these digital players also offer unprecedented access to a global audience. "A digital production company like MediaMonks needs a global audience for its high-quality content in order to be successful. But also independent content producers, such as the makers of Scandinavian quality crime TV drama, who saw their audience multiply as a result of access to a global audience through Netflix."

"Run your content as a start-up!"

Uniformity in tooling and formats needed

Still, many traditional Dutch companies see digital players like Google as a major threat. "I understand their concern", says Knaap. "But while Google has a set of formats that can be used globally, almost all Dutch publishers use different kinds of tooling and formats which do not mutually correspond. As a result, making all assets ready for an advertising campaign takes a lot of time and effort. Creating one system would make things easier and save a lot of money in production costs and become more effective."

Variety of national rules and regulations

In addition to the fact that Dutch players in the market are using internal tooling and formats that do not mutually correspond, there are also different national rules within Europe. "MediaMonks operates worldwide and a diversity of national rules and regulations makes a European campaign more expensive," says Knaap. "This is really an obstacle for brands. We also see this in the way in which European countries deal with for instance Netflix. Why not make one European deal with Netflix? Uniformity is what we need."

Advertising: it's all in the mix

Internet advertising and other advertising segments can, and will, coexist

By Ennèl van Eeden
and Casper Scheffer

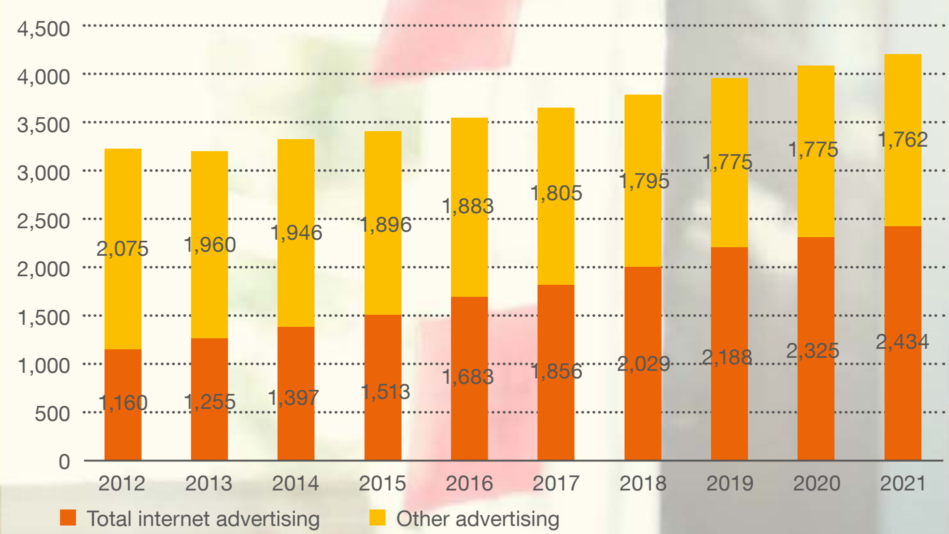
Internet advertising to exceed all other ad revenue this year

The Dutch advertising market has surpassed the €3.5bn milestone in 2016 and is heading to the next financial milestone: €4bn. internet advertising revenues will surpass those derived from all other advertising streams combined in 2017. Specifically, internet ad spend will total €1.86bn by the end of the year compared to €3.66bn for the entire Dutch advertising market.

Advertising expenditure has been shifting to online channels, in line with consumption habits over the last decade. Print products continue to lose market share, as consumers have come to read news and entertainment online and increasingly on mobile devices. At the same time, terrestrial TV seems to lose the battle against the rapid ascent of cloud-based subscription services such as Netflix and both free and paid-for content hosted on YouTube. Unsurprisingly, print, and to a lesser extent TV, advertising continue to suffer just as so far momentum in internet advertising growth shows no signs of abating.

Growth of CAGR 7.7% is forecast for internet advertising, versus 3.3% for ad spend as a whole. Traditional media will suffer the most from this transition, as newspaper publishing will show a declining CAGR of -6.1%, with consumer magazines not far behind with a CAGR of -3.7%. Thus far, radio and out of home advertising seem largely unaffected by the rise of internet advertising.

Dutch internet advertising revenues vs all other advertising segment revenues, 2012-2021
Total advertising market (€ millions)



Source: PwC, Ovum

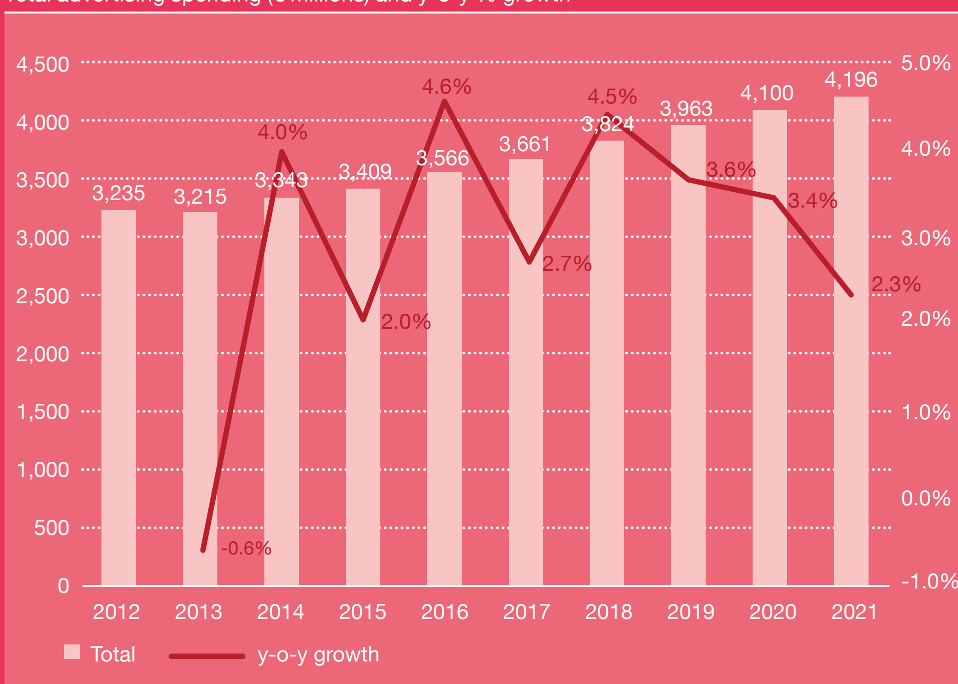
Total advertising market (€ millions)

Netherlands	Historical data						Forecast data				CAGR %
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2017-21
Television	962	933	964	965	992	953	975	984	1,007	1,016	0.5%
y-o-y growth		-3.0%	3.3%	0.1%	2.8%	-4.0%	2.3%	0.9%	2.3%	0.9%	
Radio	221	227	233	225	225	225	226	227	228	230	0.4%
y-o-y growth		2.7%	2.6%	-3.4%	-0.1%	0.2%	0.4%	0.4%	0.5%	0.7%	
Out-of-home	157	158	160	161	163	166	168	171	175	180	2.0%
y-o-y growth		0.7%	1.4%	0.8%	1.2%	1.4%	1.6%	1.8%	2.4%	2.9%	
Internet	1,160	1,255	1,397	1,513	1,683	1,856	2,029	2,188	2,325	2,434	7.7%
y-o-y growth		8.2%	11.3%	8.3%	11.2%	10.3%	9.3%	7.9%	6.3%	4.7%	
Consumer Magazines	443	412	391	372	356	341	327	315	304	295	-3.7%
y-o-y growth		-7.0%	-5.2%	-4.6%	-4.4%	-4.2%	-4.0%	-3.7%	-3.5%	-3.2%	
Newspapers	359	293	275	255	233	214	203	191	181	170	-6.1%
y-o-y growth		-18.4%	-6.1%	-7.3%	-8.6%	-8.2%	-5.1%	-5.9%	-5.2%	-6.1%	
Video Games	29	32	35	38	43	46	48	51	53	55	5.1%
y-o-y growth		10.7%	8.7%	8.1%	11.8%	6.8%	6.1%	5.2%	4.1%	3.4%	
Cinema	5	6	6	6	6	7	7	7	8	8	6.0%
y-o-y growth		4.0%	4.5%	4.6%	4.4%	7.9%	3.2%	6.7%	6.3%	5.9%	
Total	**3,235**	**3,215**	**3,343**	**3,409**	**3,566**	**3,661**	**3,824**	**3,963**	**4,100**	**4,196**	**3.3%**
y-o-y growth		**-0.6%**	**4.0%**	**2.0%**	**4.6%**	**2.7%**	**4.5%**	**3.6%**	**3.4%**	**2.3%**	

Source: PwC, Ovum

The overall growth of the advertising market is flattening to GDP-levels

Total advertising spending (€ millions) and y-o-y % growth



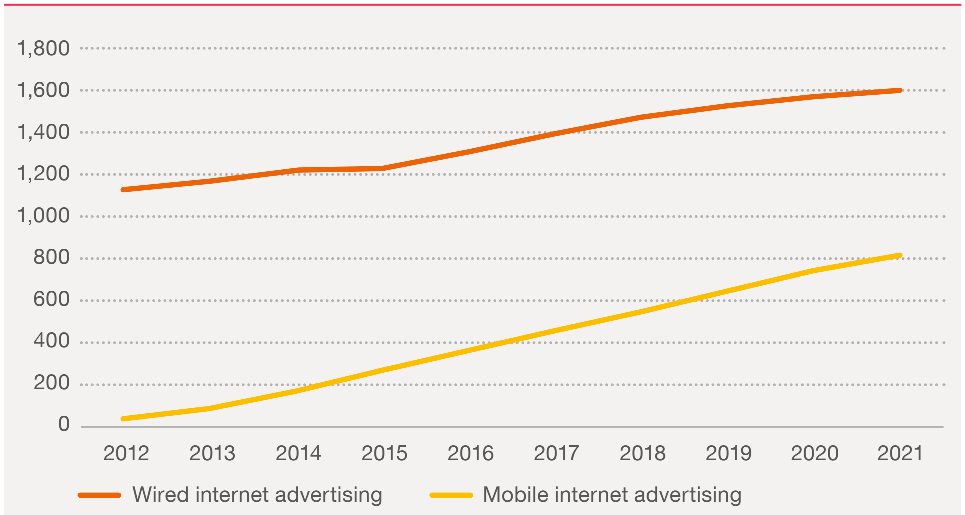
Source: PwC, Ovum

Video advertising shows explosive growth

Drilling down on internet advertising, paid search advertising claims the largest share, accounting for a projected 46% of total internet advertising revenues in 2017 (across both wired and mobile). Like businesses in other countries, Dutch companies continue to see value in paying to feature at the top of search results, a market that Google continues to dominate. Google phased in its Expanded Text Ads at the beginning of 2017, which provides more freedom and creativity for the advertiser, paving the way for future growth.

While wired internet claims the most paid search ad revenue, its growth (CAGR 5.4%) is far behind that of mobile paid search ad sales (CAGR 22.3%), the single most rapidly growing area of advertising in the Netherlands.

Video advertising in both wired and mobile internet showing strong growth 2012-2021
Wired and Mobile internet advertising (€ millions)



Source: PwC, Ovum

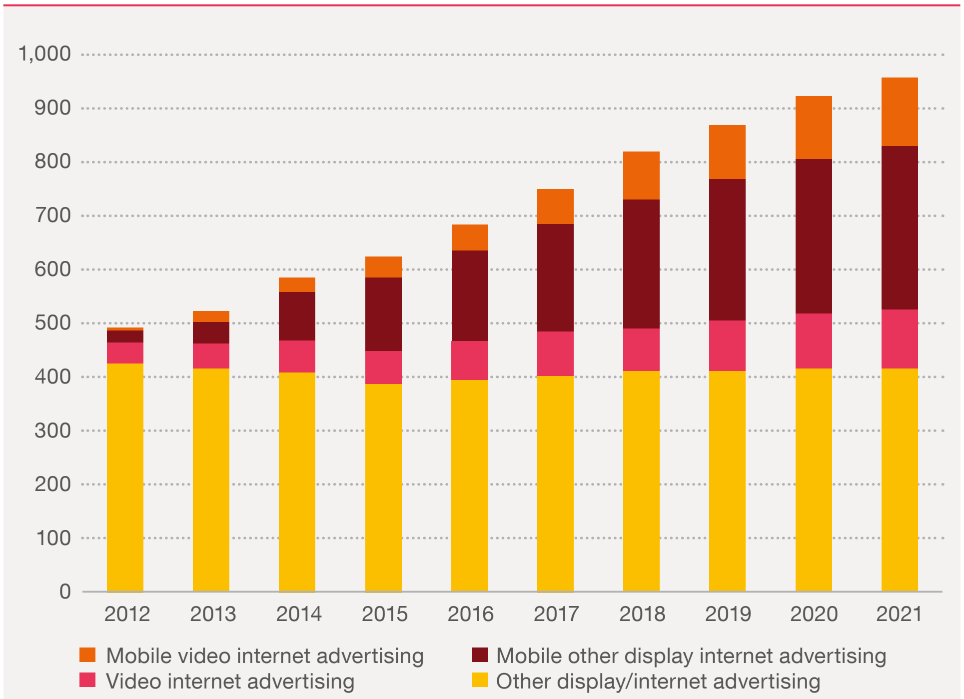
Looking across both wired and mobile internet advertising it is video that is showing high growth as advertisers flock to position themselves in front of a growing mobile audience. The recent launch of Facebook Live illustrates that the end of the growth in video is not in sight. By 2019, revenues from mobile video advertising will overtake wired for the first time.

Taken together, wired and mobile video will be worth €230m by 2021 – meaning one in every ten euros spent on internet advertising in the Netherlands will be on internet video.

Audio based assistance to change the search segment

Within the global market ad tech giants like Google and Facebook, control ad spending. This is not so much different for the Netherlands where the largest part of internet advertising is dominated

Wired display and mobile display (€ millions)



Source: PwC, Ovum

> *"The audio based searches, will impact display ads and put more emphasis on 'top 3' search results."*

by Google's AdWords. Google effectively controls the Dutch internet advertising business, with other parties holding small market shares. The same situation applies to social media advertising where Facebook holds a strong number one position.

The rise of intelligent personal assistants like Amazon Alexa, Microsoft Cortana, Google Home and Apple HomePod (Siri) can impact the near future as more and more consumers will be able to search without using a screen. The audio based searches, will impact display ads and put more emphasis on 'top 3' search results.

Ad blocking threatens revenues

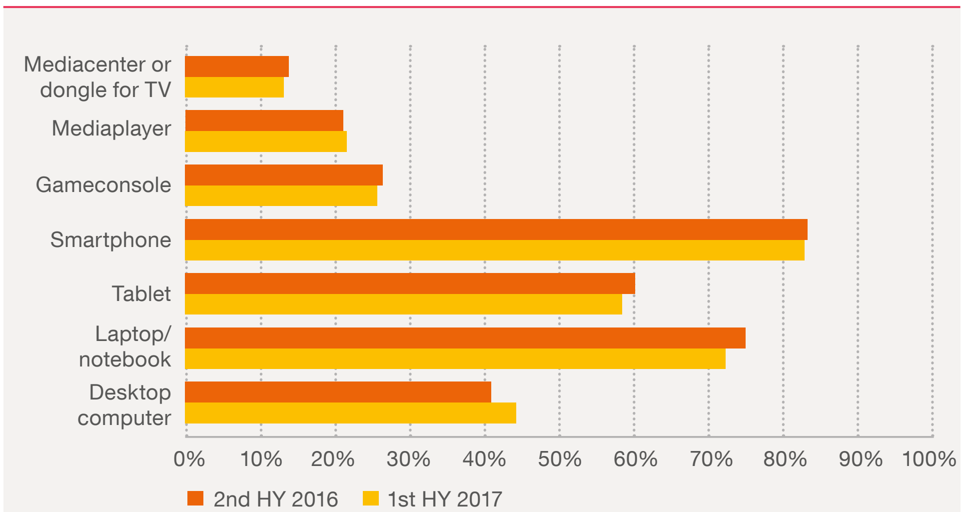
Ad blocking software remains a significant challenge for publishers and advertisers alike. An estimated 17% of the Dutch population use ad blockers, which puts it just below the Western European average of 20%, according to Page Fair.

On mobile only 2% of the Dutch population use such apps according to the most recent measurements. However, usage is rising as consumers become aware of the software which is available since 2015.

Can internet advertising live up to the promise

In recent years, the speed of developments in the internet advertising industry has exceeded the speed in all other industries, resulting in large successes. However, the frequency at which CEOs of the largest advertisers question and challenge the effectiveness of internet advertising shows that there is still room for alternatives. Clearly, internet advertising is not a magic sauce which marketers can blindly use

Digital advertising becomes more important as a large part of households in the Netherlands own laptops and smartphones
Media device ownership per household with persons aged 13+



Source: http://screenforce.nl/tv-nederland-eerste-half-jaar-2017

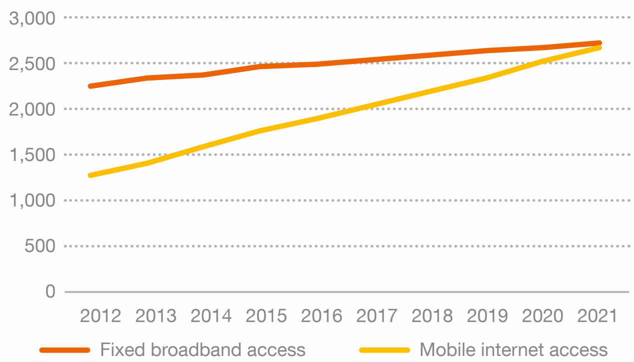
to generate the return that is expected from them. On the one hand, marketers need to closely monitor and improve the effectiveness of internet advertising. On the other hand, they should remain open-minded toward other ways of advertising.

Internet and other advertising segments can, and will, coexist, but the others do need to show they keep improving their added value. One example of an area for development is TV advertising. We expect that parties across the TV value chain will jointly increase their investments in internet-like advertising technologies.

The Dutch E&M market at a glance. View

Access spending (€ millions)

www.pwc.nl/access-spending



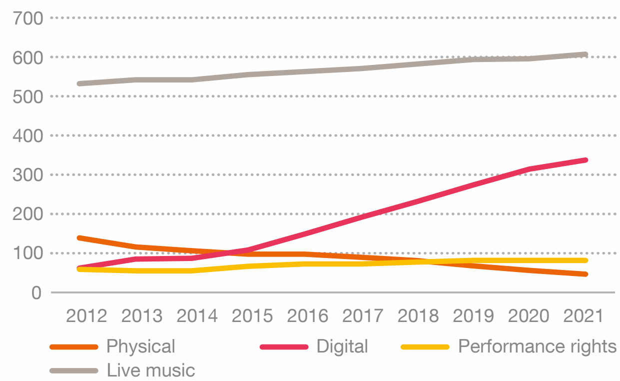
Mobile internet access spending is ***playing catch-up*** *with its fixed equivalent*

With the introduction of unlimited data plans we may be entering ***into a race to the bottom*** *for 'mobile only' subscriptions*

Scan the QR code to see our detailed views and charts for access spending

Music (€ millions)

www.pwc.nl/music



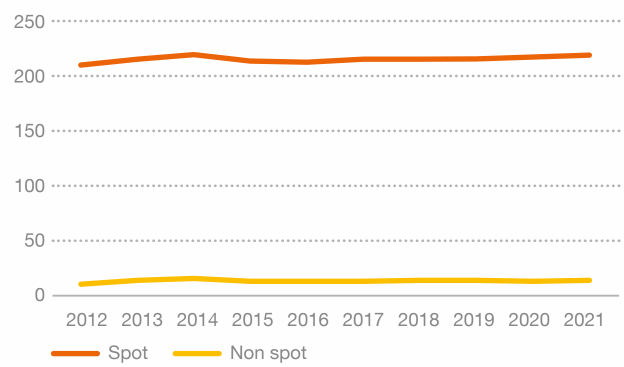
Music streaming is ***still winning ground*** *and attracting new competitors*

Blockchain can disrupt *how artists monetise their music*

Scan the QR code to see our detailed views and charts for music

Radio (€ millions)

www.pwc.nl/radio



Online radio is ***on the rise***

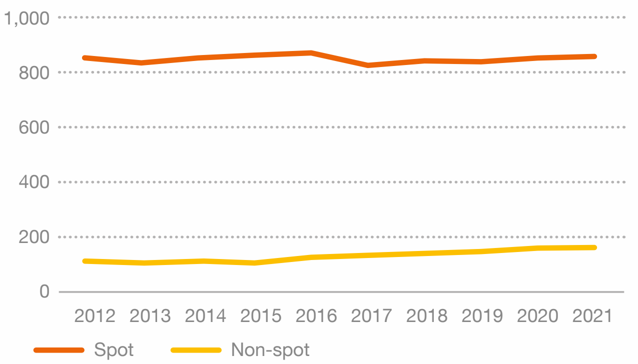
The ***ongoing decline*** *in minutes listening to radio and recent market consolidation* ***will drive further changes*** *in the radio landscape*

Scan the QR code to see our detailed views and charts for radio

our in-depth Outlook by segment online.

TV advertising (€ millions)

www.pwc.nl/tv-advertising



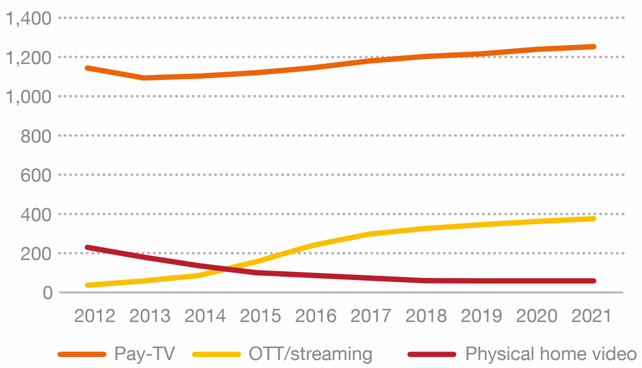
The forecast €50m correction in TV advertising budgets in 2017 is a ***wake-up call*** *for broadcasters*

Focus on user experience is essential to ***extend the lifecylce*** *of traditional TV*

Scan the QR code to see our detailed views and charts for TV advertising

TV and video consumption (€ millions)

www.pwc.nl/tv-and-video-consumption



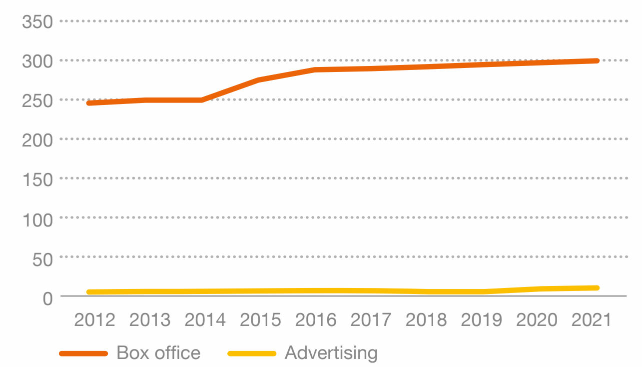
Pay-TV subscription levels ***remain high****, but new, online offerings are becoming* ***serious alternatives***

The success of streaming in the Dutch market is ***attracting new entrants***

Scan the QR code to see our detailed views and charts for TV and video consumption

Cinema (€ millions)

www.pwc.nl/cinema



Box office revenues ***remained strong*** *in 2016 after a stellar performance in 2015*

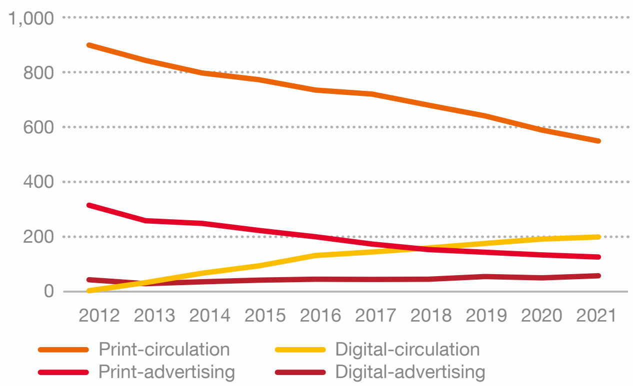
Cinemas need to ***continuously innovate*** *to attract the younger generations*

Scan the QR code to see our detailed views and charts for cinema

The Dutch E&M market at a glance. View

Newspaper publishing (€ millions)

www.pwc.nl/newspapers



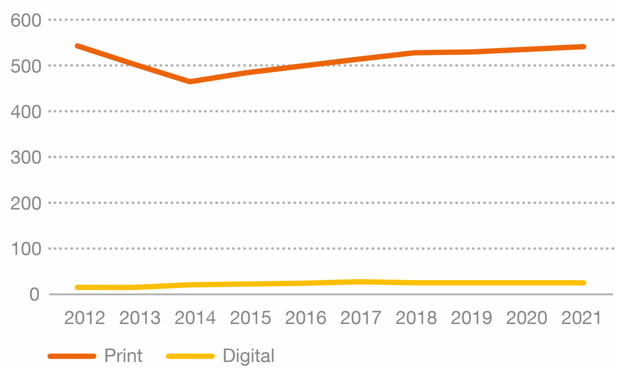
Newspaper publishers are ***extending their video capabilities*** *in their search for alternatives*

Digital advertising and circulation revenue will not compensate ***the fall in print***

Scan the QR code to see our detailed views and charts for newspaper publishing

Consumer books (€ millions)

www.pwc.nl/consumer-books



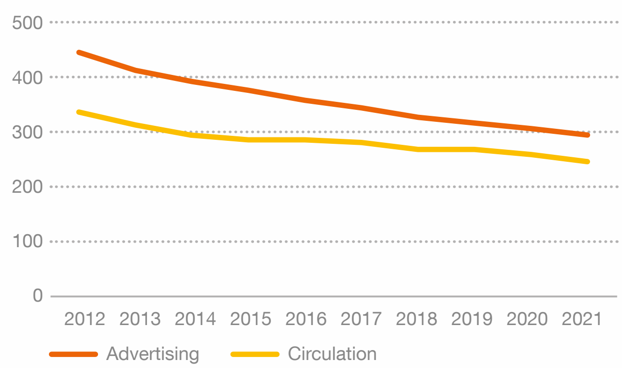
New e-book propositions come and go. So far, ***none of them has materially changed*** *the printed books market*

Printed consumer books still deliver a ***unique user experience***

Scan the QR code to see our detailed views and charts for consumer books

Consumer magazines (€ millions)

www.pwc.nl/consumer-magazines



Only a ***limited number of magazines*** *will be able to successfully build a cross-media presence and brand*

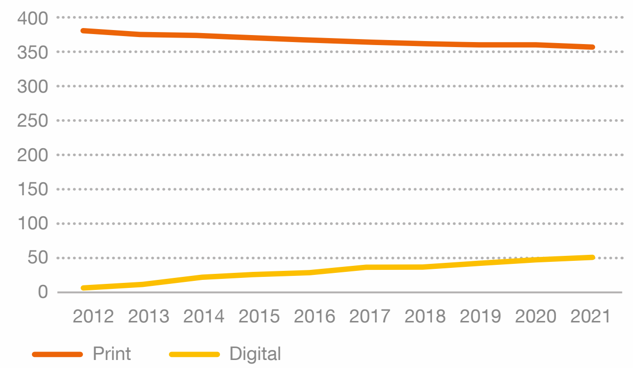
Magazines are ***uniquely positioned*** *to gather data regarding their specific target groups. Next step is to* ***monetise the data***

Scan the QR code to see our detailed views and charts for consumer magazine

our in-depth Outlook by segment online.

Educational books *(€ millions)*

www.pwc.nl/educational-books



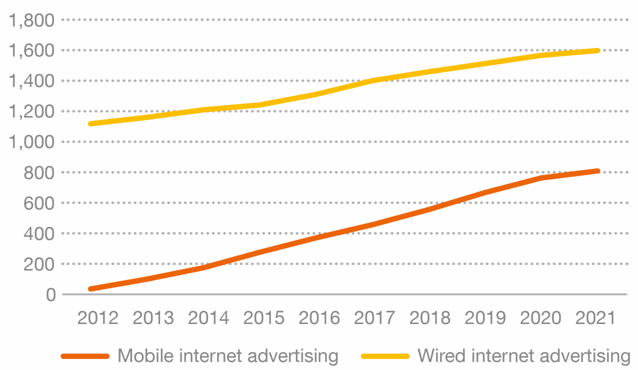
Educational book publishers are ***preparing for the future****, but is the market finally ready?*

Digital learning methods ***set to accelerate*** *when privacy limitations are solved by market participants*

Scan the QR code to see our detailed views and charts for educational books

Internet advertising *(€ millions)*

www.pwc.nl/internet-advertising



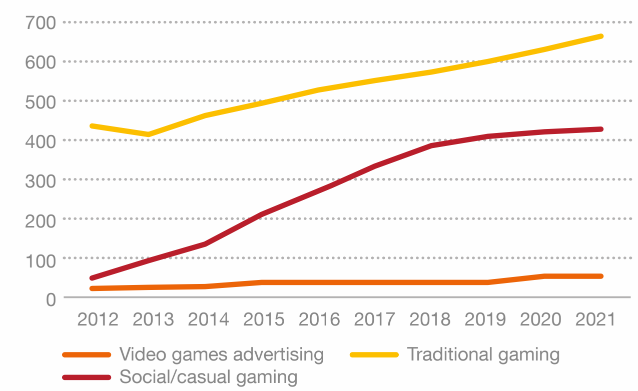
Interlocking forces *produced by the rise of mobile, video and ad blocking are reshaping the market*

Intelligent personal assistants *like Amazon's Alexa, Microsoft's Cortana and Apple's Siri can impact the* ***€600m search market***

Scan the QR code to see our detailed views and charts for internet advertising

Video games *(€ millions)*

www.pwc.nl/video-games



Playtime is over; ***with revenue surpassing €1bn in 2018****, video games are serious business and here to stay*

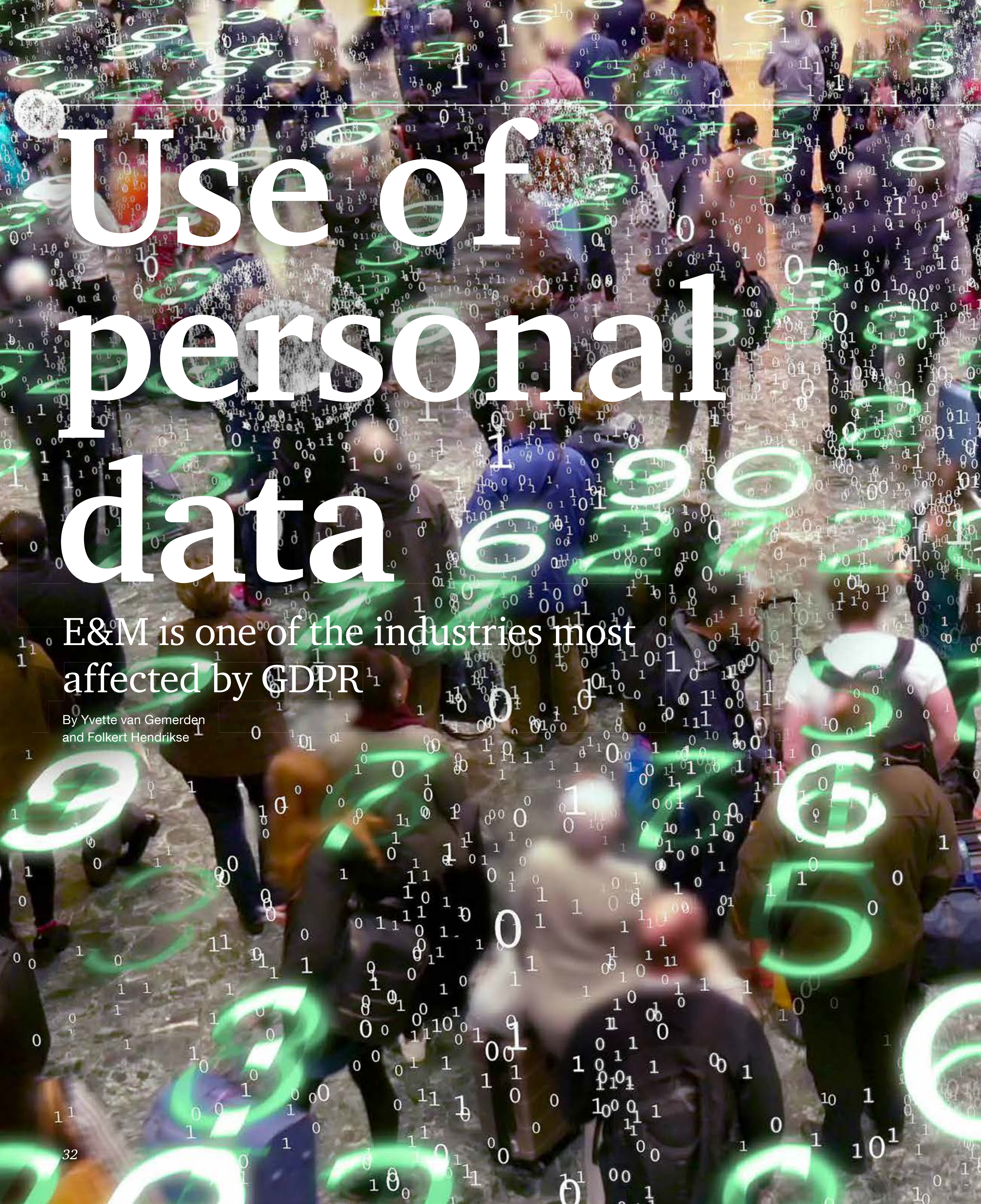
Continued success ***remains elusive*** *for many Dutch game companies*

Scan the QR code to see our detailed views and charts for video games

Use of personal data

E&M is one of the industries most affected by GDPR

By Yvette van Gemerden
and Folkert Hendrikse



The EU General Data Protection Regulation (GDPR) which becomes effective 25 May 2018, will have a major impact on the data protection policies of organisations and on how they will be processing personal data. Entertainment and media companies will be among the industries most affected. In this sector companies increasingly build their business models around collecting personal customer data to tailor their propositions and create a competitive advantage. Main purposes of the GDPR are to uplift data protection standards in and outside the EU and to deliver greater legal harmonisation of data protection regulations within the region. This should make it easier for individuals to understand how their data is being used and to raise any complaints, even if they are not in the country where their data is located.

The General Data Protection Regulation in short

The GDPR was adopted in May 2016. Organisations have a grace period of two years to become compliant with the new regulations. As of May 25, 2018 the GDPR will be fully enforceable within all EU member states.

With the enforcement of the GDPR organisations will be obliged to gain and show insight in the various personal data processing operations within their organisations. It also requires companies to implement the privacy by design and privacy by default principles by e.g. the performing of Privacy Impact Assessments in case of the introduction or development of new products and systems. Finally the GDPR introduces substantially higher penalties of up to 4% of an organisation's global annual turnover or € 20 million (whichever is greater).

"We see an increased number of imposed fines within the EU."

Across Europe, several studies show that the preparations for the GDPR are starting to get underway in most organisations, but many are struggling with the implementation of the required processes and procedures. It is clear to most organisations that the GDPR requirements include much more than improving IT security standards and procedures.

Affected media and telecommunications companies

Telco and E&M companies typically have access to a lot of personal data. They are continuously exploring how they can monetise this data and develop new products and forums to share them, by making the most of continuously evolving technologies. In some cases they inadvertently or deliberately cross, or balance on, the privacy boundaries. With privacy legislation catching up, we see an increased number of imposed fines within the European Union, including recent ones for Facebook and Google. With enforced powers for national data protection authorities under the GDPR we expect the number and level of fines to further increase. In many countries the local data protection authorities have already indicated that after May 2018 they will most certainly make use of their increased power to impose fines.

Business earnings models are increasingly based on developing personalised profiles that describe and predict our (future) behaviours, preferences and sentiments (profiling). In order to make valuable use of the trillions of bits of online personal data, large data analysis techniques are commonly used to provide previously unexplored relationships between structured and unstructured data and to discover connections that could not be detected in the past.

This form of data processing includes ‘profiling’ and it relies to a large extent on personal data. Personal data under GDPR is defined as information that allows an individual to be identified, either directly or indirectly. Examples of personal data include obvious data such as name, address or telephone number, but it also includes data such as IP address, location data, genetic data and behavioural data.

Over the past decades technologies developed rapidly and have allowed organisations to gather personal data at a large scale and analyse it for a variety of purposes. Profiling of personal data can help organisations to draw conclusions about individuals and act upon it. Such conclusions may for instance relate to targeting of individuals for marketing purposes or price differentiation, but it can also be used to exclude individuals as (potential) customers.

Behavioural targeting creates the possibility to make educated targeted decisions. Behavioural targeting includes identifying consumers’ browsing habits, such as the web pages they visit, the time they spend there, the links they click, the search queries they perform, and everything they subscribe to, watch, listen to, read, buy, like and share. It is a form of monitoring individuals which allows to anticipate the desires of current customers and use this information for marketing decisions assuming that the needs of existing customers will closely match the needs of future customers. As such, it increases the effectiveness of future marketing and advertising campaigns. For companies with a web store, behavioural targeting also includes studying browsing and purchasing habits of previous customers. This also helps to predict what customers are likely to buy in the future. When properly used and interpreted, behavioural targeting supports effective advertising efforts to ensure that only those customers with real interest in the company’s services and products are targeted.

“Profiling of personal data can help organisations to draw conclusions about individuals and act upon it.”

GDPR attempts to address concerns regarding profiling

There are risks attached to behavioural targeting, profiling and automated decision-making especially if used at a large scale. In addition to cyber security issues such as

data leakage, risks for individuals include discrimination, de-individualisation and stereotyping. Often the right to privacy is invoked to mitigate these risks. The GDPR, in an effort to define and enhance the rights of data subjects to control their personal data, contains many restrictions on automated data processing – and decisions based upon such processing – to the extent that they can be characterised as profiling.

Given the rapid technological developments in the area of profiling, it has been questioned whether current data protection laws and the right to informational privacy and data protection provide an adequate level of protection and are effective in balancing different interests when it comes to profiling. The GDPR attempts to address those concerns.

Profiling under the GDPR – allowed under certain circumstances

The intention of GDPR is not to make existing business models obsolete. The objective is to design an international framework that companies need to respect when developing and executing business models. This implies that the far majority of existing business models can continue operating in their current form, provided that certain conditions are met.

> In the GDPR profiling is defined as: *"any form of automated processing of personal data consisting of using those data to evaluate certain personal aspects relating to a natural person, in particular to analyse or predict aspects concerning that natural person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements."*

As such profiling is an automated form of processing carried out on personal data with the purpose to evaluate personal aspects of a natural person.

The "monitoring of an individual's behaviour" is further explained in the GDPR:
"In order to determine whether a processing activity can be considered to 'monitor the behaviour' of data subjects, it should be ascertained whether individuals are tracked on the internet with data processing techniques which consist of profiling an individual, particularly in order to take decisions concerning her or him or for analysing or predicting her or his personal preferences, behaviours and attitudes."

Based on article 22 of the GDPR, individuals have the right not to be subject to a decision which is solely based on automated processing which produces legal effects concerning the individual or significantly affects him or her. This is generally interpreted in such a way that individuals have the right to object to any such form of processing of personal data. This right to object does not exist if the processing is authorised by law or regulation, if it is necessary for the performance of a contract with the individual, or if it is based on the individual's explicit consent.

The GDPR furthermore requires that the organisation which engages in profiling based on automated processing activities must implement "suitable measures" to safeguard the rights of the individuals. Individuals must in all cases be specifically informed about any profiling activities. In particular, individuals should be allowed to express their point of view, to obtain further information about the decision that has been reached on the basis of the automated processing, and the right to contest this decision. This is generally regarded as the right for individuals to request a 'second opinion' by way of human intervention. In practice, this means that organisations are obliged to explain on which information their decision has been based without solely relying on, or referring to, the automated decision-making process.

The use of sensitive personal data (i.e. data about sexual orientation, race, political beliefs, health) for automated decision-making purposes is generally not allowed

"As a result of the continuous use and reuse of data, it will often no longer be possible to direct them back to the source."

under the GDPR, unless if based on explicit consent or necessary for reasons of public interest. In those situations suitable measures to safeguard the individual's rights and freedoms and legitimate interests are in place.

Most people agree that the updated privacy legislation in the GDPR is needed. Rapid technological developments, however, allow organisations to use and reuse data sets at an increasingly rapid pace and larger scale. As a result of the continuous use and reuse of data, their characteristics, structure, and value may change and it will often no longer be possible to direct them back to the source. Individuals (the data subjects) and owners of data sets may easily lose track of the use and whereabouts of the(or their) personal data. This makes it much more difficult and in some cases practically impossible to enforce the rights and comply with the obligations of the GDPR.

The GDPR may thus already be partly obsolete before it has become enforceable failing to provide individuals with the desired increased protection of their privacy under all circumstances. It shows that the speed of technological developments far exceeds that of any legislative process.

How blockchain
the advertising i

Mark Dijksman is the founder of oneUp, a company that aims to institutionalise and speed up digital innovation in mature companies by setting up free zones where start-up thinking and advanced technologies are brought together.

can disrupt ndustry

Mark Dijksman discusses two major shifts that go hand in hand and will impact many industries, including the E&M industry. On the one hand, he sees a democratisation of value and platform ownership enabled by blockchain technology, including an emergence of a new value chain in digital advertising. On the other hand he observes a change in data ownership and privacy.

Democratisation of value and ownership

Technological developments are going fast and companies that do nothing to improve or adapt their products or services are in danger of being disrupted by new players in the market. Dijksman: "Even Uber who disrupted the traditional taxi market is now itself under threat of being disrupted by Arcade City."

Arcade City is a blockchain-based taxi ride-sharing platform. Unlike Uber, Arcade City offers a free platform to connect drivers and customers and decentralises the whole payment system. All users of the Arcade City platform are also owners of the platform and the value created by taxi drivers will not flow to a central organisation. Dijksman: "This is all part of a democratisation process of value and ownership." This process is taking place ignoring industry boundaries and will also impact the E&M industry. Just replace Uber by Spotify, taxi-rides by music and taxi drivers by musicians.

"There will be a whole new value chain in digital advertising."

Blockchain technology to bypass Google and Facebook

The Basic Attention Token (BAT) model is another example of this democratisation process. BAT is a digital token that can be exchanged between publishers, advertisers, and users in a blockchain-based digital advertising platform bypassing parties such as Google and Facebook.

Dijksman: "On this open and decentralised platform called Brave, advertisers give tokens to publishers based on the ads that users have actively been looking at. Users also receive tokens for looking at content, which they can then donate to publishers they want to support. Publishers can use tokens to reward users for promoting their content and can charge tokens for premium content."

"There will be a whole new value chain in digital advertising. Right now the money advertisers pay mainly goes to parties who own the platforms, such as Google and Facebook. This will change in the years to come. Money in the advertising value chain will be redistributed."

Data ownership shifts to customers

Dijksman argues that in the future only services will be owned and not the digital platforms these services use. "The coming years will be a continuous search for added value which will be dominated by a battle about who knows best what consumers want. This battle is more important than the question of who will be the owner of a platform." In this context Dijksman also sees a change in data ownership: "The providers of services

"The rules of the game will change as data ownership will gradually shift to the consumers."

can ask consumers for their data in order to get to know them and improve the services that are offered. However, the rules of the game will change as data ownership will gradually shift to the consumers. This is also part of the democratisation process of value and ownership."

Privacy

Personal data will be more and more broken down in different layers. Dijksman: "There will be a generic layer of personal data available and also layers of more specific data on request of the data owner. Users will be able to indicate which specific data they wish to share or not, and if they wish to retract their consent, they can. For instance, MIT Medical already offers such possibilities. Anonymised medical records have been stored on blockchain which researchers can use. More specific data is owned by the user – the patient decides which private components of the medical file will be shared and with whom."

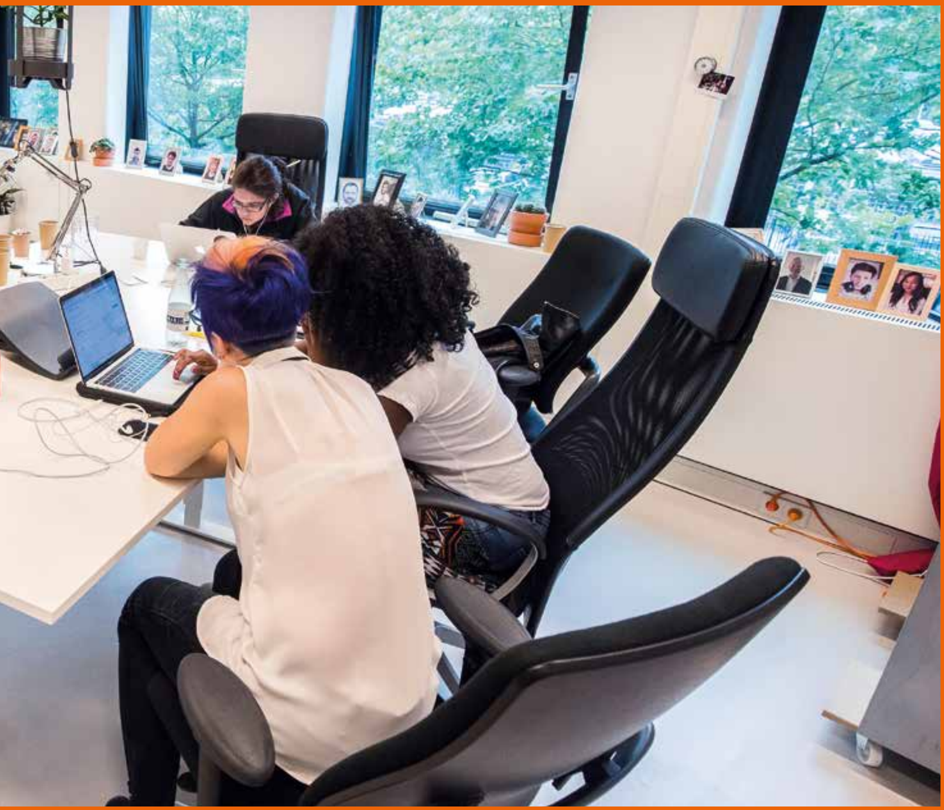
Start-up thinking in a corporate world

Remember the green 1-Up mushrooms in the computer game Mario Bros. that gave players an extra life? An extra life is exactly what the Amsterdam based oneUp.company gives to traditional big brand companies. Two years ago, oneUp.company and PwC entered into a partnership with the objective to jointly help companies succeed in an ever-changing environment.

In the current market new competitors may emerge from a garage or attic and can have the ability to disrupt a business or even a whole market segment. “Combining start-up thinking with the vast possibilities of technological breakthroughs has proven to be a very successful starting point”, says Dijksman. “Yet, what is needed today is data, expertise and money, and these are hard to come by for a business in a garage or attic.”

New meets old

“Mature companies have all three – data, expertise and money, which, when combined with a start-up mentality, can create a competitive advantage”, Dijksman explains. “Our aim is to institutionalise digital innovation in mature companies. The core organisation stays intact as it generates a continual flow of turnover and the start-up, also called ‘new co’, exists next to it in order to speed up innovation.”
“Some business issues can be solved by incremental innovation, for instance by implementing a new CRM or HR system. Yet, there are a lot of business challenges which cannot be solved this way. For these challenges you need a free zone with new capabilities and a culture of free thinking and an open attitude towards new ideas and solutions. These start-ups focus on solving business issues corporates are facing, using emerging technologies such as block chain, smart contracts and data science.”



Link between core company and start-up

Although a start-up may have a different P&L, HR architecture and legal framework, it is not disconnected from the core company. “It would, for instance, not be a good thing if there was not an exchange of data and people between the two entities”, says Dijksman. “The moment a solution materialises it is time to bring it to the transformation phase and transfer specific components from the core company to the start-up.”

Methodology

But before a solution materialises a number of phases will have to be completed first. oneUp developed its own methodology, which is a combination of Customer Value Proposition Design, Design Thinking and Design Sprint. Dijksman: “We do not respond to a request to build, for instance, a digital solution. We first look at the problem and then try to find a suitable solution. The concepts we develop always have a number of successive phases. We start with phrasing a problem statement, followed by a design sprint which includes prototyping, user testing and validation.”

“Before we write any string of code to build new software we always try to validate all ideas (i.e. assumptions, ed.) using hypotheses”, Dijksman explains. “The underlying data is the decisive factor here at all levels. After validation the build-measure-learn feedback loop starts, which is the core component of the Lean Start-up methodology and includes the development of a minimal viable product (MVP). The next step is the pilot phase and making sure the product really fits in with the needs of the target group (i.e. the problem/solution fit, ed.). The final stages are the product/market fit, or customer validation, followed by the upscaling and growth phase. However, launching a product or service does not mark the completion of the project, as the process of build-measure-learn is a continuous process.”

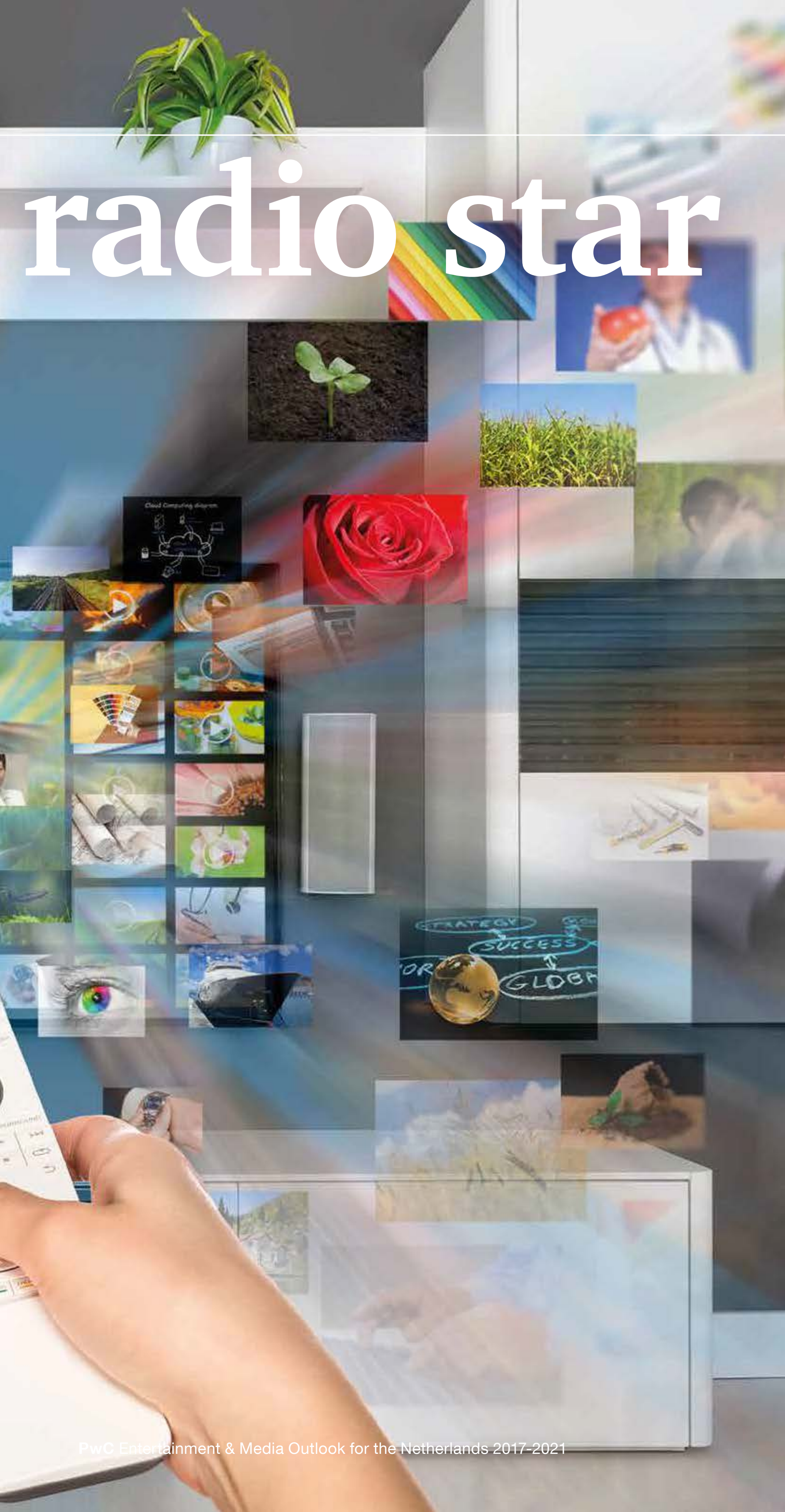
Video killed the

... but it won't kill TV

By Steven Pattheeuws and Vikram Dhaliwal of Strategy&

The way in which people consume video content is changing. The channel mix is shifting, with rapid declines in live TV watching and a rise in on-demand viewing. This brings dilemmas to broadcasters who need to protect their advertising revenues and telecom operators who need to explore what new possibilities emerge. In this article we discuss three ways to play the game in video.

radio star



Changing video consumption patterns

Subscription video on demand platforms are growing rapidly in the Netherlands. Netflix has achieved good commercial traction (nearly 2 million subscribers at the end of 2016) and Amazon is trying to follow suit with its Prime offering, launched in December 2016. The amount of VOD content has increased much faster than the additional time spent watching TV content.

Not only has the amount of time watching online content increased, but viewing habits have also changed. Recently, the go-to device shifted from TV to smartphones, tablets and other mobile devices. According to the Ooyala Global Video Index, mobile video viewing has reached an all-time high, with 54% of all videos being watched on mobile devices in Q1 2017 versus 42% last year.

Video's surge can also be seen in the tremendous popularity of vloggers. The most popular Dutch vlogger, "Kwebbelkop", has 7.1 million subscribers on YouTube. His most popular video has 18 million views. Compare this to the 2 million viewers of the 8 pm evening news show, NOS Journaal. But Kwebbelkop's popularity pales in comparison with PewDiePie's, who has over 54 million subscribers worldwide, or the music video "Despacito" (by Puerto Rican singer Luis Fonsi, featuring Daddy Yankee), which has generated an impressive 3.1 billion views so far since its launch early this year. These figures exceed previous YouTube blockbusters like "See You Again" and "Gangnam Style".

How to play the video game

The dilemma for broadcasters is how best to satisfy consumers' rush for instant gratification and remain relevant when viewers are increasingly spending more time away from linear TV, thus jeopardising their advertising revenues. For telecom operators, the question is what new opportunities may emerge in this changing video landscape.

We see at least three ways to play the game in video:

"Sports packages have become relatively popular."

1 HBO model

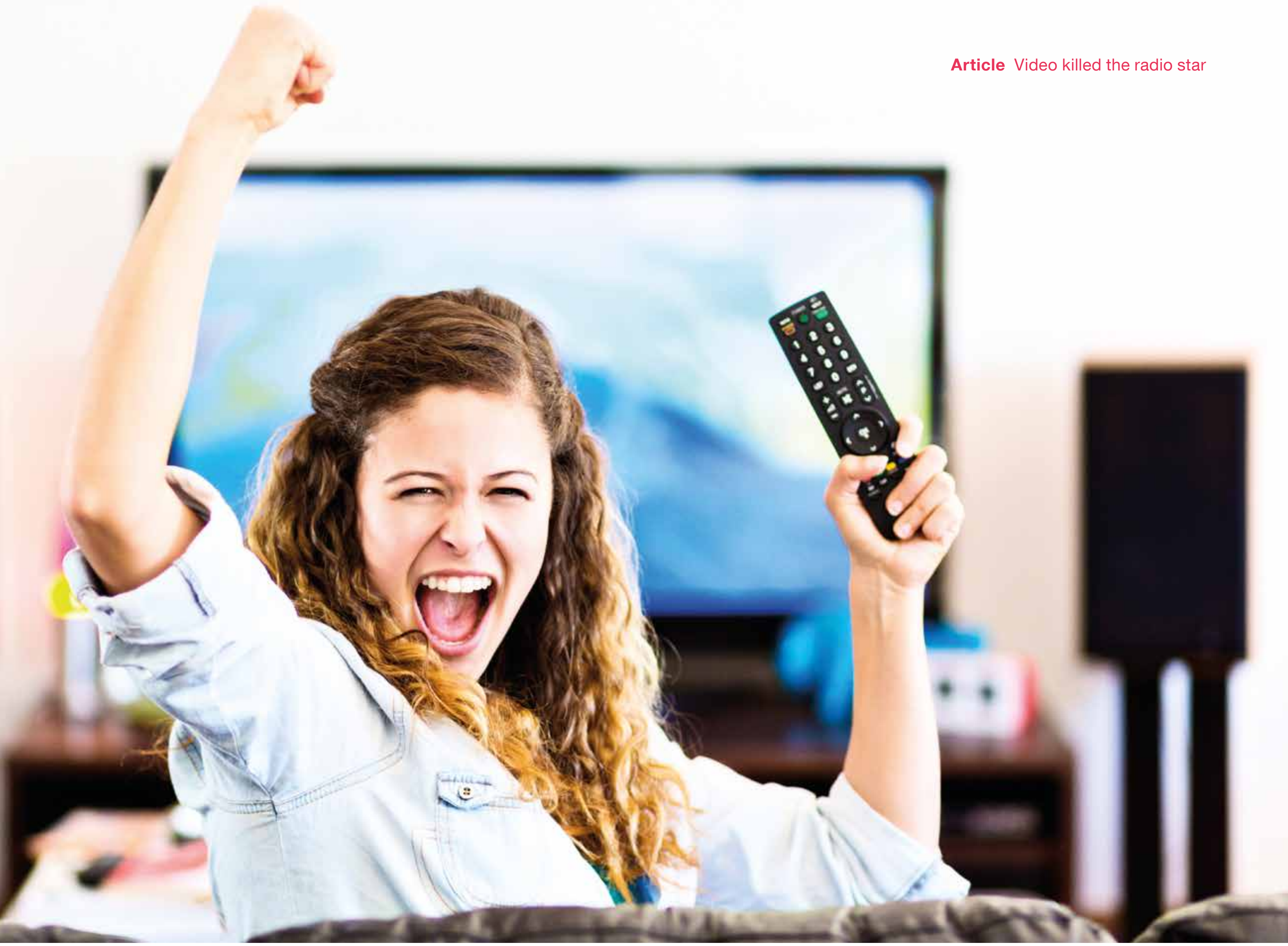
The first way is the HBO model. This involves building up and managing an extensive library of high-quality content and generating revenue by selling direct subscriptions to all possible viewers in a given market, regardless of the customer's telecom subscription. While telecoms may choose to restrict distribution of content bundles to their own customer base to boost their broadband or TV market share, this inevitably means dividing the video revenue potential by a factor of 2 or 3, depending on that market share. In addition, content owners may choose to explore hybrid models in which consumers pay lower subscription fees for allowing ads. Essential is the ability to lock in subscribers with sufficient high-quality content that is constantly renewed. This means having at least a few blockbusters (e.g. Game of Thrones, House of Cards) every year. This content does not necessarily need to be proprietary, especially in a globalising media context in which it is becoming increasingly difficult to stand out.

2 Multi Carrier Network

Second, media players can explore MCN (Multi Carrier Network) opportunities. These are OTT ad-supported models that package content by online talent and professional content (for example, user-generated content in collaboration with YouTube stars or sport programmes presented by young and promising talent) and make it available through global platforms like YouTube. MCNs have multiple channels serving to distribute diverse types of online content. Some MCNs like DiagonalView (ITV, Daily Mail, Reuters) produce their own content rather than aggregating third-party content. Fullscreen achieves 4 billion video views each month and was acquired by AT&T last year. Local examples in the Netherlands include RTL MCN, Social1influencers SBS, and OnLane. In this model, the key is to have vast amounts of content that is easily accessible and constantly renewed. This generates enough reach to maximise the amount of money that can be made with advertising.

3 Direct subscription

The final option is to offer specific content, for example an OTT sports channel, in a direct subscription model. Here the key is to maximise reach among the licensed target group. While pay-per-view has yet to catch on in the Netherlands, sports packages have become relatively popular. Smaller scale investments in niche content may be justified. Niche OTT video can address a smaller group of (international) viewers with a specific interest. Companies and institutions can do away with telecoms, broadcasters and OTT channels altogether and go direct. The Wiener Staatsoper, for instance, offers broadcasts of selected opera and ballet performances around the world using an OTT model that they manage independently. Performances can be viewed live (€ 14) or on demand (€ 5).



For these models to work, two key factors are vital. The first is that there must be sufficient scale or, more specifically, customer reach. Reach determines the content-generated revenue potential and hence profitability. The second factor is the growing risk of failure owing to the rising volume of video content and series. A portfolio approach is needed to hedge this risk, and that requires substantial investments in a broader library of content, as opposed to an opportunistic, ad-hoc investment in a single series. To avoid a vicious circle, players should keep close tabs on how much content they require to hedge the risk. This may rule out any of the cited video models for smaller players.

"Telecoms should develop an effective engine that is able to provide the user with content."

And what about smaller players?

Smaller telecom operators can play the video game by making a wide variety of content available to the widest possible audience through an intuitive and compelling interface. Larger players can also pursue this route alongside the video models cited above. Eventually this boils down to a battle for user experience, which is about building an appealing, easy-to-use interface that clusters all relevant content available.

In addition, telecoms should develop an effective engine that is able to provide the user with content recommendations. Consumers increasingly expect to be surprised and delighted by a personalised offering of what they consider enjoyable content. Because serendipity is important, telecoms should balance recommended content with suggestions for more mainstream offerings. The recommendation engine should work across different content platforms, from broadcast TV over VOD to Netflix or Amazon. Here is where telecoms can outdo the recommendation engines of the Netflixes and YouTubes of this world. They need to pursue open partnerships with third-party content providers allowing them to incorporate the OTT video content in their recommendation engine.

> *"The recommendation engine should work across different content platforms."*

Finally, adding a context-specific dimension (location, time, device) to recommendations can allow telecom operators to get the jump on smart TV providers, which are building similar capabilities.

Moving ahead

The powerful desire for instant gratification is driving a huge viewership potential for video. In an increasingly global video world, however, the jury is still out on which models can really generate significant revenues for domestic telecom operators and media companies. Carriers can play a role in bringing together multiple sources of content and in helping consumers navigate this landscape. No-regret moves for telecom operators include innovating open, easy-to-use interfaces that help consumers navigate content and cross-platform recommendation engines that work across devices. The time to make these moves is now, before smart TV manufacturers and global OTT players start to fill this space.

E-mail marketing alive and kicking

By Joris Heijltjes

"Joris, this is your last chance to have a great holiday in Greece!" We've all received e-mails that try to persuade us to open them with an attention-grabbing, personalised subject line. But are they effective? Is e-mail marketing effective at all?

For the second consecutive year we conducted the research and data analytics for the Dutch E-mail Benchmark as published by DDMA (Data Driven Marketing Association) in June 2017. Seven E-mail Service Providers (ESP's) handed in their 2016 data of 2,901 companies divided into 25 industries. On average these ESP's sent over 500 campaigns representing almost 13m e-mails per day, bringing the total number of analysed campaigns on 185 thousand, representing 4.7bn e-mails over the year 2016. Given the breadth of industries and the number of e-mails analysed we consider the dataset as a representative or at least meaningful sample of the entire population of companies who use e-mail for their B2C and B2B campaigns in The Netherlands.

It isn't always clear to recipients, but marketeers spend a lot of time and energy developing strategies to improve return on advertising spending and other KPIs. You'd expect that by now, companies would have learned to use e-mails effectively in advertising campaigns. We analysed 4.7bn e-mails this year and found that the number of people who opened an e-mail divided by the total number of successfully delivered e-mails (COR) has increased from 35.2% to 37.5%. That's the good news. The bad news is that we're still no good at persuading people to click on a link. The number of link clicks divided by the total number of successfully delivered e-mails (CTR) fell slightly, from 7.0% to 6.9%. Why is that? Has the quality of our e-mails declined, are people more selective, have our measurements changed – or is something else going on?

One could argue that people are becoming more selective, since fewer recipients heed the call to action and click on links in opened e-mails. However, I believe that the way we measure "opens" has an important impact on the KPIs. E-mails are considered opened when images are loaded. Because more e-mail clients automatically load images from trusted senders, even if the recipient hasn't actually opened the message, the open rate appears higher and, logically enough, the CTR and CTO are lower.

Whatever the exact reason, e-mail is still one of the most effective ways to reach target audiences – provided you adhere to the following do's and don'ts:

1. **Keep the campaign size small.** A smaller campaign size (up to about 10,000 recipients) has a positive impact on number of e-mail opens and CTR.
2. **Send the e-mail at the end of the day.** Campaigns sent between 4pm and 9pm generally have a positive impact on COR and CTR.
3. **Limit the number of campaigns.** Companies that send 1 to 10 campaigns per year have higher than average ratios.
4. **Send the e-mail on Saturday.** E-mails sent on Saturdays are 0.6ppt higher than average in CTR.
5. **Use techniques.** Dynamic content, personalised subject lines and responsive design will improve most ratios. Dynamic content has an especially significant impact, with an increase of up to 3ppt on mobile clicks.

Let's stick to these do's and don'ts and see whether we can improve this year's figures! The complete Dutch text of the E-mail Benchmark can be downloaded for free at: www.nationaleemailbenchmark.nl

The RAW experien in a digital era

Jeffrey Duyvesteijn, omnichannel marketing director, and Sabine Mutsaerts, global media manager, are both seasoned marketing and communications professionals at jeans brand G-Star RAW. The G-Star brand saw the light in 1989 and developed into an innovative global player in the fashion industry in more than twenty-five years.

In their stylish industrial office designed by Rem Koolhaas, Jeffrey Duyvesteijn and Sabine Mutsaerts talk about how they tailor their global marketing and media strategy to continuously changing local market dynamics and consumer behaviour.

Jeffrey Duyvesteijn explains that in the 90s, building relationships with retailers was key in building and growing the G-Star brand. "G-Star was very well represented in local retail stores big and small. These retail stores were the determining factor in the customer experience as they were the only point of contact between our brand and consumers. G-Star relied on autonomous growth through these distribution channels and did not yet roll out big advertising campaigns."

But, Duyvesteijn adds, local shops lost that position due to the advent of the internet as a source of information for consumers, and as a sales and communications channel for brands. "This caused a shockwave in the market. G-Star became a retailer as well as wholesaler and started to use the internet to find ways for maintaining customer relationships and getting first-hand information about what consumers really want."

> *"The mix of marketing tools we use depends on the country in question."*

Grassroots marketing

Although G-Star did not yet launch big advertising campaigns in the 90s, this does not mean they did not engage in marketing activities. Sabine Mutsaerts: "In the early years, we had to create brand awareness with a limited marketing budget. We did this, and still do, by being present as a brand at big fashion shows and events which were then picked up by fashion magazine editors all over the world. The internet also gave a boost to this type of marketing, since it can attract attention for these local events among a global audience. This grassroots marketing strategy is an important step towards building a global brand."

Pharrell Williams

A few years ago, G-Star started working with Pharrell Williams' company Bionic Yarn on several RAW for the Oceans collections. They took their partnership to the next level where Pharrell became co-owner of the G-Star RAW brand in 2016. The special Elwood Jeans collection Pharrell designed last spring was very successful and received a lot of media attention, both inside and outside the US." Duyvesteijn: "When Pharrell talked about G-Star in the ABC talk show Jimmy Kimmel Live! (ABC) tens of millions of people heard about our brand. Thanks to him we really made headway in the US market."

The complete marketing spectrum

G-Star is active in the complete marketing spectrum, ranging from billboard advertising and attractive shop windows to online bannering, e-mail marketing, social media, TV commercials and influencer marketing, such as working with bloggers and vloggers. "Our brand challenges conventions with innovative collections and marketing campaigns. As a brand we want to be top of mind of the consumer", says Mutsaerts. "The mix of marketing tools we use depends on the country in question. For instance, in the US we focus on public relations, influencers and cooperating with celebrities because TV commercials are very expensive there."

"Good quality ad campaigns will spread organically."

Brands turning into publishers

Modern communication forces brands to stimulate consumers with interesting content all year round, 24/7, according to Mutsaerts. "Advertising is not limited to a billboard or an online banner. Consumers want constant updates and incentives. The large amount of content that brands have to produce to achieve consumer engagement almost turns them into publishers." Duyvesteijn adds: "All the different story lines G-Star creates are distributed on many different channels and these need to fit in with each other."

Above-the-line and below-the-line campaigns

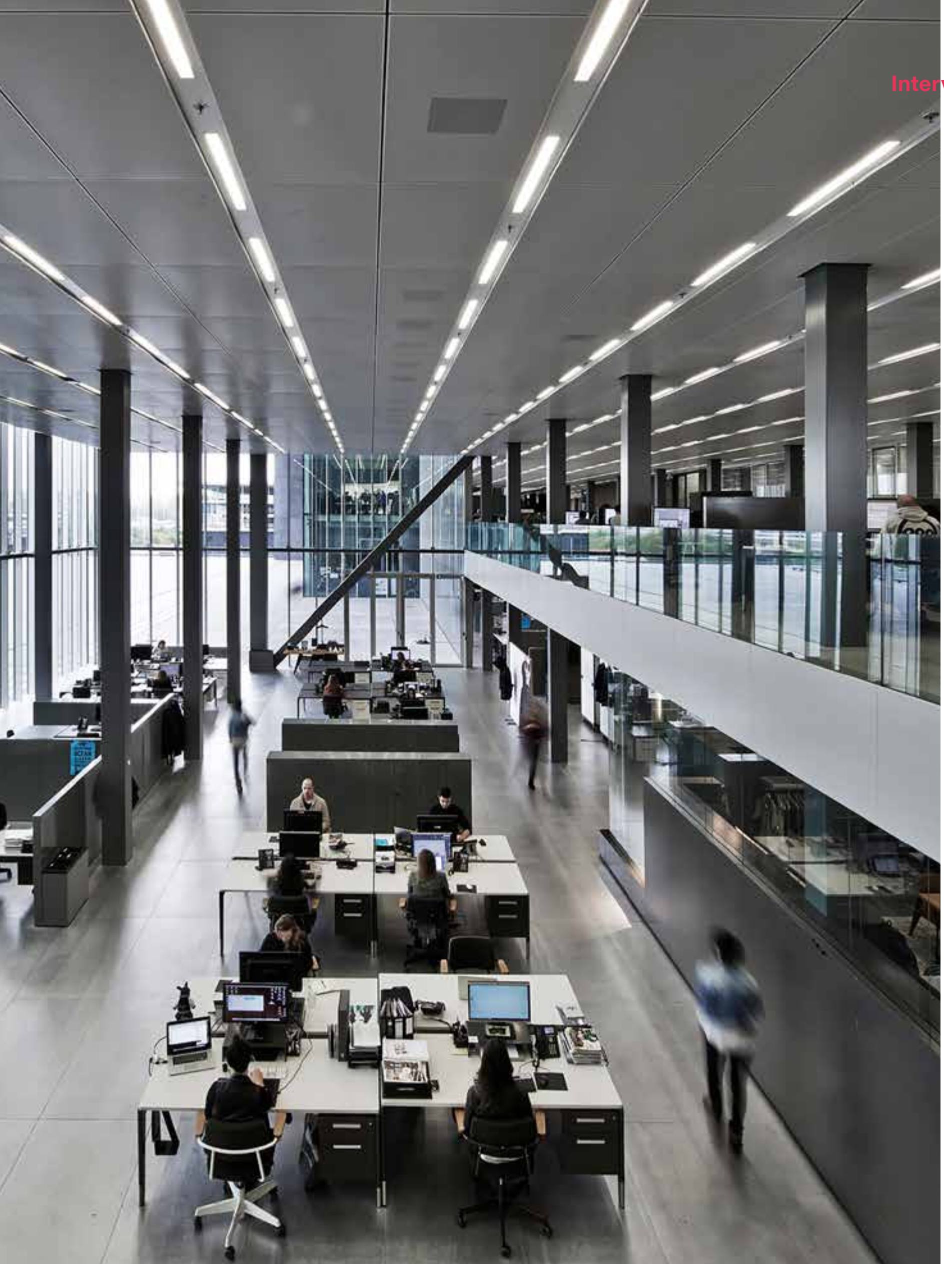
Twice a year G-Star launches a so-called above-the-line campaign that is visible on all mass media channels. "These are big bang campaigns, both online and offline", says Duyvesteijn. "TV commercials are a part of it, but although a significant part of our customer base still watches TV, it is an expensive medium for advertising, especially if you want to make a high-quality commercial. Throughout the year we want to be present on all below-the-line channels to make sure our brand stays top of mind. For instance by building relationships with our customers through social media and by making sure they sign up for our newsletter."

Advertising irritation

"However, consumers do not always want to see ads online and immediately recognise sponsored content", Duyvesteijn continues. "This shows in the popularity of ad-blockers. On the other hand, curated ad content that is delivered in an organised fashion often provokes less aversion among consumers." Mutsaerts: "Besides, in today's digital ecosystem good quality ad campaigns will spread organically as they will be talked about and shared on social media." Duyvesteijn: "And consumers also search for our brand online, as most consumers use the internet in the shopping orientation phase. Consumers look for our products on Google or on multi-brand websites. They go to these multi-brand websites just as they went to multi-brand stores before the rise of the internet."

Targeting can remove irritation factor

Advertising campaigns that are correctly targeted can remove the irritation factor according to Mutsaerts. "I'm fascinated by all the possibilities of targeting specific focus groups. Consumers who receive our newsletter already know our brand and are ready for a more detailed storyline. A sponsored post on Facebook, for instance, is more focused on consumers that are not yet connected with our brand and this requires a different



Collecting data and measure effect

G-Star's marketing intelligence department measures the effects of advertising on different channels. "This way we learn how a campaign works and, if necessary, how to improve it", says Mutsaerts. "Because of the internet there is a lot of focus on the number of clicks and direct action, but when we look at brand surveys we also see that ad campaigns often have a delayed effect in our stores. Two or three weeks after an ad campaign there can still be an in-store sales uplift."

Duyvesteijn: "However, it is still difficult to measure the exact purchasing behaviour of specific customers in the so-called brick and mortar stores. Loyalty programmes connected with a product or a transaction are ways to solve this. A large proportion of our sales are still generated in our stores, but we also sell a lot of our products through multi-brand stores. This poses a challenge to data collection."

Multi-brand sales channels

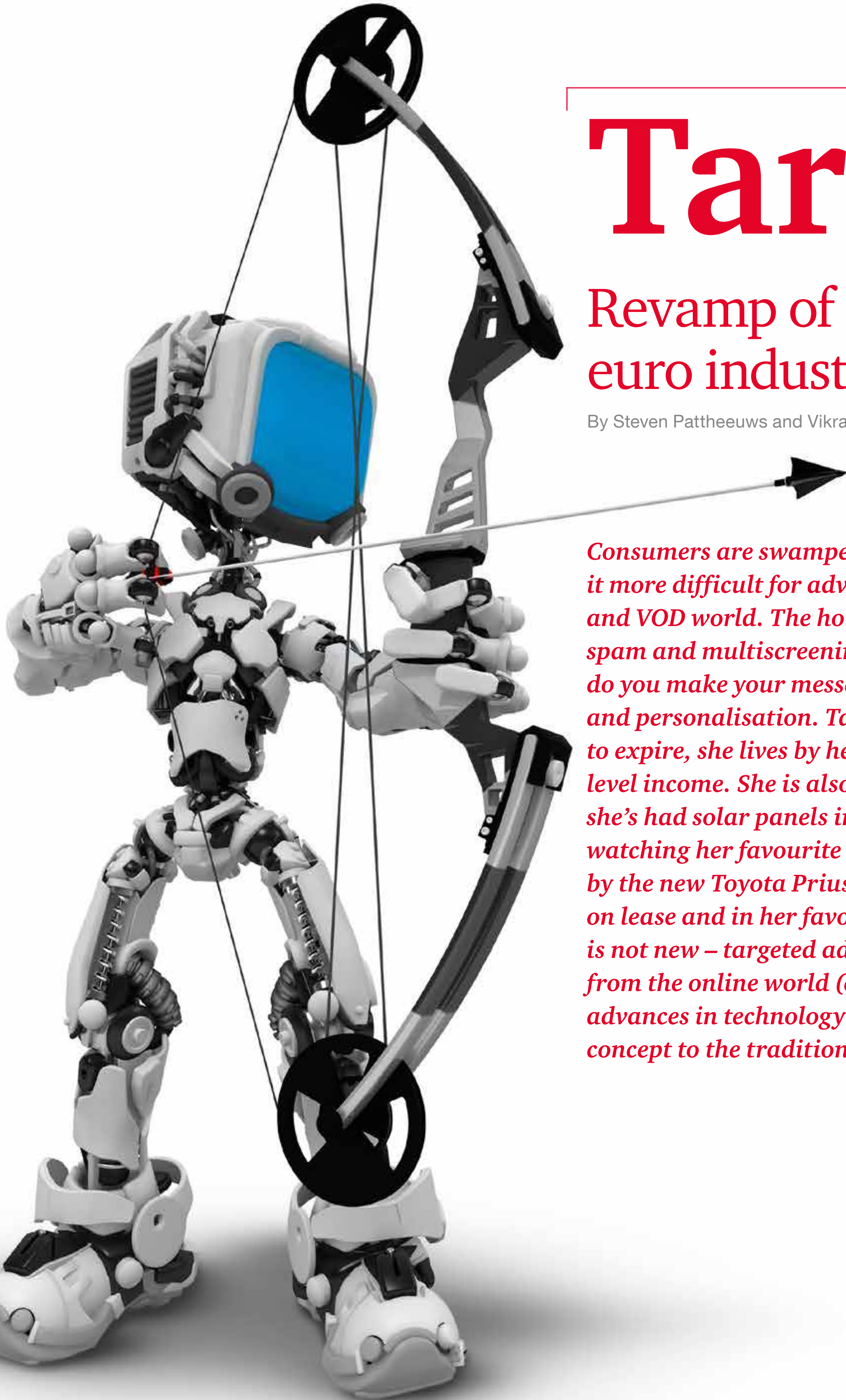
Mutsaerts emphasises that multi-brand sales channels, both online and in stores, can give useful insights about other brands G-Star buyers purchase. "Additional information about the purchasing behaviour of our customers gives us a better picture of them." Duyvesteijn says it is not G-Star's aim to sell all products through G-Star sales channels. "It is nice to have a loyal clientele, but customers who shop in multi-brand stores and wear other brands are also important to us. But of course we would like to have customer data to create that brand loyalty in the long run."

General Data Protection Regulation

When asked about the European General Data Protection Regulation, Duyvesteijn says that G-Star will not have to make a lot of changes when GDPR will come into effect in May 2018. "As a global brand we have to comply with the rules and regulations of many jurisdictions. As we cannot afford to make any mistakes we always make sure that we are compliant with the jurisdiction that has the strictest rules. But of course we develop as a business and this may require us to test our activities against new rules and regulations. Right now there are a lot of rules that for instance prescribe what is and what is not allowed in e-mail marketing or when it is allowed to share data with third parties, such as an online marketing agency. GDPR unifies data protection regulations within the EU, which is more than welcome."

"Ad campaigns often have a delayed effect in our stores."

type of communication." Mutsaerts adds that social media, such as Instagram, also offers the possibility to target consumers with specific interests. "We showed our RAW Research collection at a fashion show in Paris and built an Instagram campaign around it that focused on trendsetters in fashion." But she also asks herself how specific advertising content should be. "All these different storylines make an ad campaign very complex and you also have to think of the scalability aspect."



Targeted

Revamp of a one billion euro industry

By Steven Pattheeuws and Vikram Dhaliwal of Strategy&

Consumers are swamped with ads these days, making it more difficult for advertisers to stand out in the TV and VOD world. The holy grail in the jungle of mindless spam and multiscreening is simple: relevance. And how do you make your message relevant? Through targeting and personalisation. Take Lisa. Her car lease is about to expire, she lives by herself and she has a steady mid-level income. She is also environmentally aware, as she's had solar panels installed on her roof. While she's watching her favourite show, her attention is grabbed by the new Toyota Prius Plug-in Hybrid, now available on lease and in her favourite colour, red. The concept is not new – targeted advertising is a proven concept from the online world (e.g. Google, Facebook). However, advances in technology make it possible to apply this concept to the traditional advertising world.

TV advertising

The potential of targeted advertising

Traditional TV advertising uses estimated reach to purchase TV spots in advance. Everyone watching the programme views the same spot, a scattergun approach that is both inefficient and wasteful because many of the viewers are not in the target group. Traditional advertising revenues have been in decline, but they are about to be revived thanks to targeted advertising, an approach that is already successful in the online world.

Building a targeted advertising proposition has two main benefits. First, there is less waste in advertising inventory. Traditionally, the impact of an ad increases when it is shown during a popular TV programme. However, this involves bombarding many consumers with messages of no relevance to them. Targeted TV advertising focuses on delivering the advertisement to the right individual at the right time. Second, targeted advertising achieves a higher ROI on advertising spending. It tunes the message to the right audience and results in higher engagement and more programme stickiness, making the advertisement more effective.

> ***“Traditional TV advertising is a scattergun approach.”***

Two flavours of targeted TV advertising

Targeted TV advertising can take two forms: programmatic advertising and addressable advertising.

Programmatic advertising leverages set-top box data based on actual viewership of programmes rather than panel research determining who is watching which programme. The advertiser knows which programmes the target audience is watching and can select advertisements for those programmes. The main benefit for advertisers is that they only pay for the ads that the target group watches. The main advantage for media players is that this form of enhanced advertising does not require access to customer profiles and viewing data on all the viewers.

Addressable advertising goes one step further by sending specific advertisements only to viewers in the target audience. Data on income, postal code, viewing behaviour, age group and other characteristics tells the advertiser which households are in its target audience so that it can select the advertisements to broadcast to them. In Lisa’s case, the advertiser can target Lisa regardless of the programme she is watching and show her that a fantastic new Toyota Prius is available to lease, in red. Advertisers buy a target audience rather than the advertising space around a programme, and are better able to monetise the full potential of their advertising inventory.

Main impact drivers for telecoms and broadcasters

The value of targeted advertising for broadcasters and telecoms is twofold.

First and foremost, they can achieve higher CPMs (cost per minute) on the targeted ads than on regular ads. In other words, advertisers are willing to pay more for a targeted ad. For telecoms, this means demonstrating that targeted ads are more effective, requiring them to build their ad activation measurement and reporting capabilities. Second, targeted advertising also allows broadcasters and telecoms to monetise some of the ad inventory that was previously difficult to sell in an untargeted model (e.g., smaller TV channels, less popular TV programmes or early morning programmes).

There are two hurdles to value creation, however. The first is insufficient customer reach. If targeted advertising fails to reach all the people in the viewership base, the value capture will be lower than the full potential. While this sounds obvious, reaching all customers is not that straightforward. After all, each telecom and cable company covers only part of the population, proportional to its TV or broadband market share. Broadcasters must therefore consider engaging with multiple telecom operators and cable companies to reach their full viewership base.

The second hurdle is ad volume. The more ads that can be turned into targeted ads, the higher their impact potential. This means that telecoms and cable companies need to sign partnership deals with as many ad

“Advertisers are willing to pay more for a targeted ad.”

inventory owners as possible – basically with all relevant TV broadcasters, but also VoD providers, for instance.

A match made in heaven

To make targeted advertising happen, several "ingredients" are required. Broadcasters own content and valuable advertising inventory but lack data on who is watching their programmes. Some telecom operators have their own advertising inventory and channels, but more importantly they have access to individual customer data and profiles. They know who is watching what and when, and which profile matches their customers – limited, of course, to their own TV or broadband customer base. It is clear that maximum value can be created if telecom operators and broadcasters work together and play complementary roles.

As indicated, covering the full viewership customer base is key to offering targeted advertising to all viewers, and the more TV channels covered, the higher the impact potential. The way forward lies in non-exclusive arrangements or in partnerships between multiple broadcasters and multiple telecoms. Note that the latter option only applies to addressable advertising in which ads are tuned to the individual viewer, as opposed to programmatic advertising, which is more panel-based.

Finding the right model

There is no one "right" model for capturing the value of targeted advertising. There are multiple models that could work, from full-fledged advertising plays over joint ventures to relatively "lighter" commercial partnerships. It all boils down to the role a company plays in the ecosystem (e.g. whether broadcasters and even certain telecoms own their own TV channels or a content library and have access to their own advertising inventory versus others that do not), current capabilities (e.g. access to consumer data), and potential capabilities. It also depends on the role a media player aspires to play and its willingness to invest in new advertising technology and big data capabilities.

So what roles can telecom operators and cable companies play? Moving from "limited" to "expansive" (roles are cumulative), they are:

1. only offering technical ad placement capabilities
2. collecting and selling raw customer data
3. processing customer data and generating customer profiles
4. managing own inventory for own VOD environment and own TV channels (if any)
5. participating in the management of third-party ad inventory

The more expansive the role, the larger the share of CPM uplift a telecom operator or cable company can capture but, equally, the larger the investments required. A carefully crafted view of the in-country advertising and media ecosystem will shed light on which opportunities are available, allowing for current telecom assets (technical and customer data) and telecom market share in TV/broadband.

The time is now

The potential value of targeted advertising is significant, but how to capitalise on it differs from one player to the next. Nevertheless, there is one key message for all players: act now or you will miss the boat. First of all, big players like Facebook and Google are already exploring how to use their huge database for targeted advertising. Second, bigger and smaller players are already forming partnerships. Several players in the Dutch market are running pilots on targeted advertising. Considering the complexity involved in choosing the right partner (e.g. taking legal and exclusivity issues in account), you don't want to be left behind with only a few mediocre partners to choose from.

Making a move now will not necessarily require a multimillion dollar investment to create an all-encompassing advertising solution. After all, everyone in the market is still searching for the right model and the right capabilities.

Moreover, advertisers themselves are not ready for a higher level of targeted advertising (hypertargeting) on an individual basis because most of them still use more traditional segmentation (e.g. income and gender). So a state-of-the-art targeting machine may not be necessary from day one. Nevertheless, the clock is ticking. Basic preparations would be a smart move, as well as exploring possible partnerships, exclusive or non-exclusive, with broadcasters or telecoms – bearing in mind that possible competitive tensions between certain parties may exclude working with both simultaneously.

Getting there

Four critical capabilities must be in place to offer targeted advertising.

The first is customer data, neatly stored, and customer opt-ins to use the data in line with GDPR. This is often a major bottleneck, for instance when older opt-ins do not properly cover the purpose of targeted advertising in the agreement.

The second capability is customer analytics. Fortunately, as we have seen in several instances, not many TV advertisers are ready for hypertargeting. However, basic demographic and viewing data is a must. Location data is another relevant dimension, particularly because global OTT players have a harder time capturing mobility data than mobile operators do (OTT apps only capture location data when the app is activated). One key element to watch out for is the difference between household data and individual data. After all, a 15-year-old girl is likely to have very different interests than her 50-year-old dad, but both of them may watch the same TV set at different times.

“Act now or you will miss the boat.”

The third capability is ad delivery. This will require a commercial partnership with an established ad tech player or an acquisition. Unfortunately, many of the more mature ad tech companies have already been acquired and there are fewer start-ups in Europe than in the US. In addition, European players may not have the same footprint as the telecom operator, so an outright acquisition may leave the latter with ad tech businesses in countries where it is not active. Set-top boxes also need to be enabled, which may require replacing older versions. This could prove to be expensive, so a phased approach may be the way forward, starting with more “interesting” customer segments (e.g. more affluent customers, urban environments, or families).

The fourth capability is the ability to sell the ad inventory. Telecoms may need to build up an ad sales force or seek partnership with a media company that already has the capability. Existing sales forces will need to be retrained to move from selling regular ads on linear TV to selling targeted ads.

Don’t wait, start small

One last consideration. A lot needs to happen to bring targeted advertising to life. As speed is important, one way is to “start small”, for instance by developing targeted ad capabilities on a single proprietary platform first (e.g. own VOD platform or own TV channels). This basically means

starting ad-hoc targeting pilots and slowly building a strong targeting capability from there. There is no need to roll out targeting capability immediately across an entire customer base. Start with the customers who have opted in and already own a set-top box that has targeting functionality. And finally, telecoms and cable companies should consider acquisitions or commercial partnerships, even with established targeted ad joint ventures in the countries where they are operating, as opposed to building all capabilities organically. Broadcasters should reach out to the telecom world and seek strong partners that can build some of the capabilities they do not have and that can give them the individual customer insights they so dearly want.

Building bridges to programmatic TV

Mark van de Crommert founded Mediasynced together with Mendel Looije. Mediasynced was the first company to synchronise ad campaigns on TV and radio with online ad campaigns.

wards

A stream of cross-media innovations led to the launch of Mediasynced's advanced TV and video platform. This platform intelligently combines offline and online data to create and identify TV and video campaigns that really move people, as measured by actual behavioural changes of consumers. Mark van de Crommert explains how this works and discusses the obstacles in the Dutch TV advertising market and has an important message to all players in the Dutch and European TV advertising industry.

Finding a way to recognise real-time audio and video signals from TV or radio streams, match these with a specific ad campaign, and then give this campaign an online boost was the first innovative solution of Mediasynced. Van de Crommert: "We detect, digitalise and map the offline part of a campaign. By making this fingerprint you build up data that can be used as a starting signal to buy online ad space for a campaign through a Demand Side Platform (DSP). The DSP will then buy broadly targeted ads in a programmatic auction. This will give a double boost to an ad campaign."

"This may sound a bit counter-intuitive to some people, because in online advertising most people aim to target specific audiences. We try to convince them that they can also aim for broad targeting in order to create brand awareness and attract new customers by extending their TV ad to an online ad campaign."

Monitor website activity

After each TV or video commercial, Mediasynced monitors consumer response and changes in behaviour, such as the activity on the website of the brand in question. "We focus on the difference between consumer activity before and after a TV or video commercial. If we see an increase after a TV commercial, we can attribute this rise to the commercial. The effect of synchronisation proves to be substantial."

Measure consumer activation

This sparked the development of the aptly named 'Spotalytics' module of the Mediasynced platform. It measures the direct effects of TV advertising in real-time, by monitoring the online behaviour of consumers after seeing a TV commercial. "Spotalytics measures the activity on a website and the number of searches after a TV commercial has been broadcasted. And we also measure other customer behaviour after TV spots, such as inbound call centre traffic. These measurements are all indications for the level of success of a TV campaign at specific moments and on specific channels. These insights are then used to optimise TV and video campaigns and to create substantial savings in the process."

TV viewership data and online behaviour

Although Mediasynced monitors the activity on a website based on critical metrics such as visits and conversions, they don't know exactly who is watching TV or who these website visitors are. In other words, it's not yet possible to identify which individuals or households have seen a TV commercial. "Matching detailed TV viewership data with online behaviour would provide even more valuable insights into the success of a television campaign", says Van de Crommert. "Through anonymised, GDPR compliant TV viewership data, we could see the direct link between a person watching a TV ad and subsequently visiting the website. Of course, KPN and Ziggo, but also TV manufacturers, are all able to collect viewership data, including viewing habits and IP addresses. Unfortunately, in the Netherlands this combination of TV viewership and behavioural data is not yet a reality." He mentions three main topics that need to be addressed for this to happen: technology (standardisation), business models (between TV operators, TV channels and others) and privacy (GDPR compliance).

Collecting TV viewership data

Van de Crommert sees three ways to collect viewership data: through TV operators, TV manufacturers and broadcasters.

"Collecting viewership data through TV operators has proved to be difficult so far. Major operators in the Netherlands, Ziggo and KPN, may decide to keep these data for themselves. Launching Ziggo Sports and KPN Presenteert, makes both Ziggo and KPN channel owners, in addition to content distributors who have control over all hardware. In theory, this combination makes them very powerful and they will be able to sell ads using all the data they have and control. This is one of the reasons why operators are taking stakes in content companies."

> *"As an industry, we need to work toward aggregation of TV viewership data from different sources."*

"TV/CE manufacturers collecting and providing global viewership data is also a possibility, but in this case you only have data for each brand and it is limited to connected TVs that are used for tuning instead of using the set-top box provided by the operator."

Viewership data can also be collected by TV broadcasters (RTL, NPO) through their VOD-platforms (RTL XL, NPO start, Kijk) or Hybrid Broadcast Broadband TV (HbbTV). HbbTV is a European standard that harmonises content delivery through broadcasters, IPTV and broadband on smart TVs and set-top boxes. "HbbTV has been implemented in the Netherlands, but a lot of people do not yet have the Hbb option on their TVs as many installed set-top boxes do not relay this signal. Still, it is a way for broadcasters to collect data in the future, although this data is not aggregated as each different broadcaster will have its own viewership data."

"In short, there is no single provider that has all the TV viewership data that advertisers need. As an industry, we need to work toward aggregation of TV viewership data from different sources, in a safe GDPR compliant environment."

Hesitance about sharing data

Even though the importance of monetising data is widely acknowledged Van de Crommert notices some hesitance about sharing data. He attributes this to the fact that players in the Dutch TV market are still in the middle of finding out what their business model and role in the market should be. "Moreover, TV platforms and TV channels have a wide range of topics to agree on in their contract renewals. This makes it difficult to add discussions about data and advertising, which is another complex area to understand and agree on. Fear of negative media attention may also play a role, as was the case for TP Vision (Philips) not so long ago, when they did not inform clients about their use of TV viewership data."

TV advertising should be more like online

The situation in TV advertising does not match the situation in the online world where parties such as Google and Facebook know everything about users and successfully monetise this data. According to Van de Crommert TV advertising needs to start using the systems and methods of online. "Mediasynced generates data from TV commercials and sends this data in real-time to a client's DMP (Data Management Platform, ed.) More and more advertisers combine our real-time TV data with their first party customer data and the data of their online ad campaigns in their DMP. In this way they can get a holistic view of their campaigns and monitor success and the conversion rates of specific audiences after TV ad airings. In this version, the TV-DMP quickly becomes a reality for any TV advertiser."

"Programmatic TV advertising is the single most important development for TV advertising in the years to come."

Programmatic TV advertising platforms

He emphasises that buying and delivering ads through programmatic TV advertising platforms is the single most important development for TV advertising in the years to come. "It will allow brand advertisers to target specific audiences and measure the effectiveness. Programmatic also makes sure viewers are not bothered by irrelevant ads or an ad frequency that is too high. This creates an environment in which advertising is experienced as pleasant and useful. This is what we should aim for as an industry, because it will lead to TV and video campaigns that will really move people and excite advertisers at the same time."

TV advertising is a stronghold under threat

Google and Facebook control a significant percentage of the online advertising market. Van de Crommert sees TV advertising as a last stronghold where Europe, including the Netherlands, can still play a significant role. "The advertising business is too indulged in navel-gazing and lacks the necessary cooperation. Local market players are competing with each other instead of looking at the bigger picture."

Counterbalance to the global power of digital giants

"The players in the European TV market need to join forces, with the aim to standardise technology and formats, and to allow aggregation of their TV audiences. In each EU market , the local players are still in the best position to attract loyal viewers and advertisers by offering local relevance. If they 'gear-up and team-up', their advertising revenue will keep flowing and with that the funds for buying and producing great content."

Innovation often stalls not because of technology but because we lack imagination

By Ilja Linnemeijer

We talk a lot about disruptive technologies, but what is equally striking are technologies that stay very close to earlier technological manifestations. The first car is one such example; it looked more like a carriage fitted out with a combustion engine than the vehicle we now regard as an automobile.

For an industry that has always thrived on creativity, the Entertainment & Media sector still has quite a few 'horseless carriages' driving around. Of course, we can read newspapers digitally, either on a site or in the traditional layout in PDF format, and videos and links embedded in the editorial content are updated constantly. So the packaging has been modernised, but the content is about the same as twenty years ago.

News can be absorbed or experienced, and it is precisely the experiential factor that is becoming increasingly important. We are already seeing the first experiments with virtual reality news images, meant to give readers a broader, deeper 'news experience'. Wouldn't it have been fun – in a manner of speaking – to have attended Donald Trump's inauguration virtually and to have seen for yourself just how big the crowds really were?

And why do cinemas still look the way they did ten years ago? Why can't filmgoers become part of the film or participate in the action? Or watch the same film from five different perspectives with multiple story lines? My partner and I could attend the same showing and each of us would see a different film. That would certainly change our post-film conversation, and we'd undoubtedly want to see the film again to experience the other story line.

And since I'm on a creative roll: just imagine that I can watch all the old Star Wars films at home with my son and then – as a lasting reminder of an enjoyable father-son weekend – print out a Darth Vader doll on my own 3D printer. And afterwards, play my favourite tunes without stealing income from my favourite band, because blockchain technology protects intellectual property rights and defines user terms and conditions.

In my imagination, everything is possible – and I'm not just making all this up, of course. There are small-scale experiments under way testing all these things. What I find striking, however, is that it often takes a long time to break out of old patterns (and revenue models). Technology isn't the bottleneck, and hasn't been for a long time. Technology can now do almost anything we can imagine. Unfortunately, humankind is often limited by its own associations and relatively fixed ideas about how things are supposed to be, like a newspaper or a film. It's easier to stick with what we know than to go off the beaten track. But like other industries, the Entertainment & Media sector must continue to think creatively and imagine the impossible. Only then will we be capable of unlocking the full potential of new technology, of finding really new business models, and of discovering new disruptive applications and models.

Colofon

Many other professionals from the Dutch PwC Entertainment & Media practice contributed to this publication.
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