# Outlook

Entertainment & Media Outlook for the Netherlands 2018-2022


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# About this magazine

It is with great pride that I present our annual Entertainment and Media (E&M) Outlook for the Netherlands. In this edition, we zoom in on the period 2018-2022.

We cannot emphasise enough that the E&M-industry is continuously facing change at a high pace. Enabled by new technologies and high-quality access, consumers are 'always on'. Consumers and businesses create endless connections and direct-to-consumer relations, offering a great wealth of data and possibilities for advertisers.

This combination enables the market as a whole to continue to grow at a higher pace than the Dutch GDP. However, the impact on individual segments (such as magazines, newspapers and traditional TV broadcasting) and individual companies can be completely different. Local incumbents, including publicly owned parties, are confronted with market entrants that invest on a global scale.

In this Outlook Magazine we focus on cross-segment strategic and societal developments and challenges. This year's Outlook contains a wide range of topics, including: a summary of the advertising and consumer spending market as a whole, the future of video, the impact of IoT on telcos, a reflection on trust in algorithms and news, and the future of taxation of the digital economy. These and many other topics are covered in articles and columns written by our PwC and Strategy& experts.

A special thanks to Serge Bueters (Squla), Frank Volmer (Ster), and Corné Dubelaar (Triple) who have been willing to share their views with us in the interviews included in this Outlook.

Our views are based on intensive debates, analyses and in-depth discussions with industry experts, including our clients, other business partners and the global E&M Outlook team led by Ennèl van Eeden.

Preparing this Outlook would not have been possible without them. We are grateful for their contributions.

Internet access is no longer included in the financial information as presented in our Outlook. As a consequence, summary tables and tipping points have changed compared to previous editions. Historical numbers have been restated accordingly. Segment-specific data, projections and analyses are only included in our free-to-access online environment. We recommend you to visit us online at www.pwc.nl/outlook.

As always, we encourage you to contact us if you wish to discuss how the findings in this report apply to your business. We hope that this Outlook Magazine will contribute to the complex decisions you have to make. We look forward to hearing from and working with you.

Best regards,

**Casper Scheffer**
Entertainment & Media Leader PwC the Netherlands
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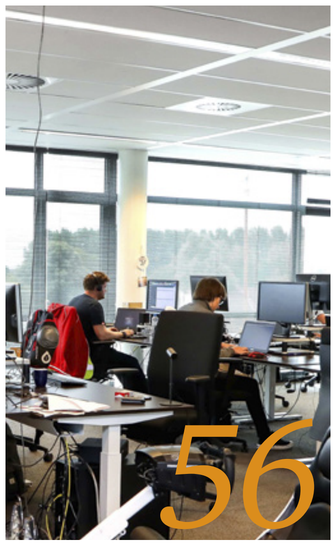
# Outlook




# Ride the new wave of convergence!

## Convergence, connectivity, technology and trust

By Casper Scheffer and Roushan Oemar

*With smartphones becoming the pre-eminent Internet access device, innovative companies that are active in the E&M industry should strive to create an integrated business model suited to this consumer-driven dynamic – one in which social media and e-commerce are interlinked with the entertainment experience itself. Meanwhile, companies that initially only offered technology or distribution are now moving into content and the boundaries between the different media types offered are blurring. The players in the market are keenly aware that (trustworthy) content has the potential to be a high-engagement, high-frequency, high-usage application that keeps users across all demographics and devices engaged and enables the provider to build relationships with them. Determining the right strategy and attracting the right talents to execute this strategy are huge challenges. Get ready for a new wave of convergence!*

In this article, we briefly describe some of the major developments in the global entertainment & media landscape and reflect on the impact on the Dutch industry. We group the major developments into four overarching themes: Convergence, Connectivity, Technology and Trust.

Obviously, the impact of global trends on individual industry segments and companies varies. Also for the years to come, overall growth in digital products, services and advertising will more than offset the decline in their non-digital counterparts.

Regardless of their heritage or core competencies, E&M companies have to compete in multiple areas at once: content, access, distribution, technology, user experience, customer intimacy and monetisation. Contracting and retaining talent and business partners are key to be successful in this environment.

## 1 Convergence 3.0 – tooling up to operate on multiple connected fronts in the digital landscape

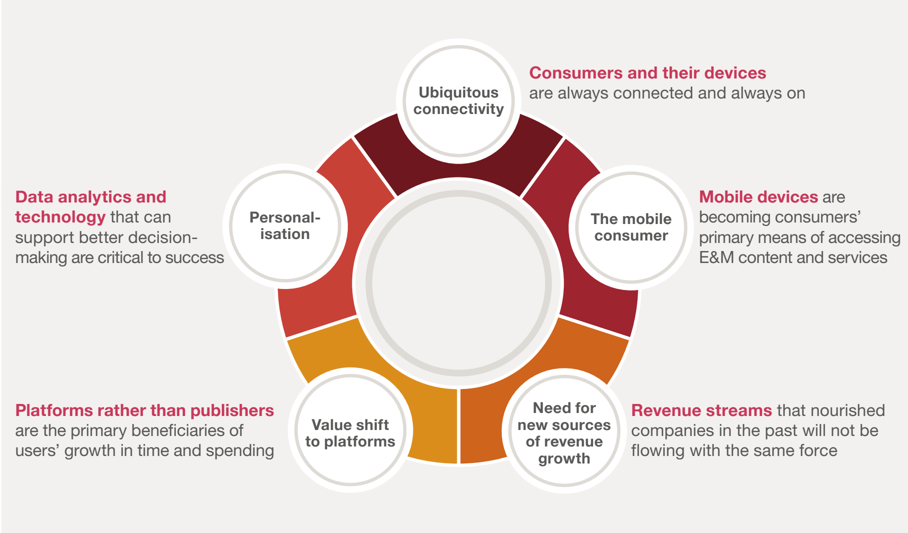
Globally, the past twelve months have been marked by an increasing level of competition across all E&M segments. An already complicated global E&M world is changing ever more so.

When we take a few steps back, we see some intertwined, fundamental drivers of change (see exhibit 1). Consumers have a need for more personalised content and thanks to mobile technologies they are always connected, always on, wherever they are.

These drivers of change are applicable to most of the industry segments. Platform-driven solutions are winning ground in multiple segments. The drivers of change are forcing companies to compete cross-industry and develop new monetisation strategies. To a certain extent this is not new, since E&M companies have been battling for the attention of consumers, the budgets of advertisers, and for media spend and data for years now. What is new is that boundaries are becoming increasingly blurred and that non-E&M companies are entering the arena. The distinction between the various media types in the market is increasingly collapsing. Now that the most prized assets in the digital age have been determined, competition for those assets is coming from every conceivable direction.

The Dutch operating environment is no exception to this global trend. On the contrary, consumers are embracing new propositions and local businesses are heavily impacted by

**Exhibit 1: Five fundamental drivers of change**




Source: PwC

either international takeovers or international competition. International companies dominate the E&M market in the Netherlands.

### The rise of super competitors

The further drive of convergence also has an effect on the rise of so-called super competitors. Size matters, especially in a platform environment. The current impression is that super competitors can combine technologies and large budgets, and enter into any segment they deem to be relevant in order to get direct access to large audiences. This lack of a level playing field is an ongoing challenge for smaller business. Just one example to put this into perspective: mid 2018, super competitors announced to invest one billion US dollars in NewTV, a video start-up focussing on on-the-go 15-minute video content. In parallel, Dutch public broadcasters need to cut costs so that they can offset a foreseen decline in TV advertising revenues.

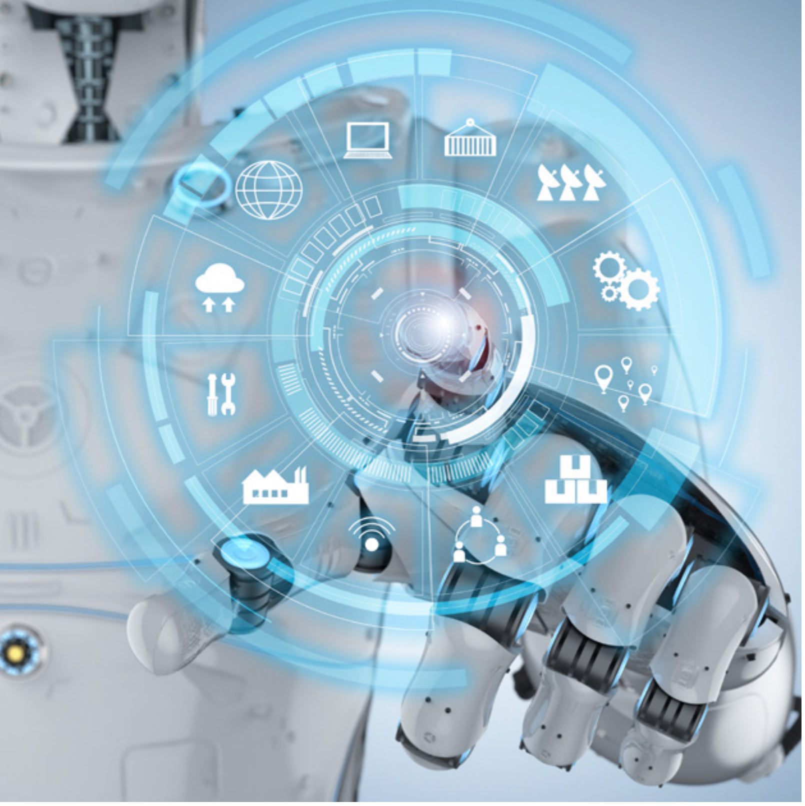
The rise of these super competitors does not necessarily mean that all smaller E&M companies will seize to exist. The super competitors have created deep-pocketed market participants that can buy content, invest in scale-ups, and serve as buyers for maturing businesses. Local companies can try to either focus on a niche market, enter into partnerships with super competitors, or even grasp the opportunities new technologies have to offer and reach international audiences themselves.

Based on many discussions we identified three key ingredients that smaller E&M companies require to build scale and remain relevant:

1. Be a powerhouse of quality and engagement. Create a sense of identity and community with customers by delivering high-quality experience.

2. Deliver brand-consistent content and advertising. Address the interests and preferences of fans with regard to content and advertisements.

3. Aim at high-value, hard-to-reach audiences. Target content and experiences at high-value audiences that others find challenging to attract, and turn them into loyal fans.



We are positive that these ingredients are and will remain available in the Netherlands. The Dutch E&M industry shows that the Netherlands is still a hotspot for growth, creativity and innovation; an example is Messagebird, which raised a staggering 51 million euros investment at the end of 2017. The company has reinvented a way to monetise a seemingly dead SMS service. Other companies that have transitioned into and beyond the scale-up phase are for example: MediaMonks, Squla, Talpa Network, Triple and Zuiver Media. They prove that the Netherlands is a hub that encourages innovation.

## 2 Without ubiquitous connectivity no growth

24/7 connectivity to consumers underpins and enables increasing digital revenues. Ever-faster Internet access further enables this. In markets with high fixed broadband penetration, such as the Netherlands, consumers will increasingly access the Internet via a growing number of new and emerging devices for in-home use. Connected TV set-top boxes, smart TV sets and media streamers like Apple TV and Google Chromecast will become widespread. Additionally, online gaming on different platforms (PC, console, tablet, mobile) has shown to have a strong effect on the increased demand for high-speed internet access.

*"…the Netherlands is still a hotspot for growth, creativity and innovation."*

This year also sees the first launch of 5G services in select global locations; T-Mobile Netherlands took a first step towards such services by activating its first antenna with 5G technology in the city centre of Amsterdam.

With the rise of unlimited mobile data bundles, combined with the unrelenting and increasing appetite for data, data consumption via mobile phones will have a strong impact on the E&M market. Improvements in speed, quality and reliability positively affect such areas as on-the-go video and mobile gaming. Consumers will have access to more video, multiplayer games, as well as immersive VR and AR experiences. Streaming series via mobile networks will increasingly be vessels for distributing video content, be it free content such as that on YouTube or Facebook, or underpinning the expansion of pay-for-subscription services like Netflix, or watching live sports games. The development of unlimited mobile bundles and improved mobile access can also influence the total amount of time consumers spend on media, which still shows upward potential. This brings opportunities for new propositions, and may be a lifeline for traditional media as not all time consumers spend on new propositions is cannibalizing existing media usage.

## 3 New tech presents new opportunities for advertisers

PwC analysed more than 150 emerging technologies to pinpoint the essential eight: a set of technologies that every organisation, both in E&M and beyond, must consider when formulating a tech strategy (see exhibit 2). They will have a major impact on the E&M and telecom industries.

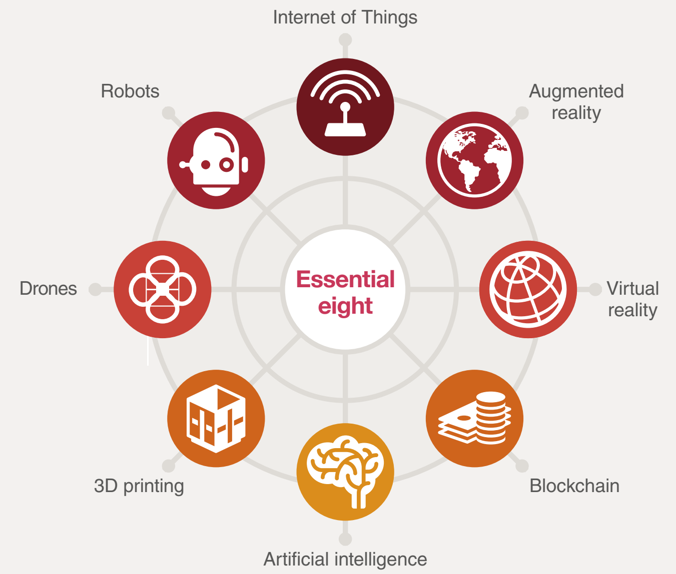
New technologies and devices, like artificial intelligence (AI), VR and AR, voice-based smart home devices and virtual assistants, look set to drive innovation in internet advertising on a global scale in the coming years. Within the changing contexts created by new technologies and devices, stakeholders will aim to devise and deliver new ad formats that can drive revenue and return on investment for advertisers.

AI will have a pervasive impact on all companies, not just advertising companies. We already see many examples of E&M companies applying AI to improve the customer experience as well as to create content. Pilots include the creation of music, books, movies and game content. AR and VR are also beginning to play a supporting role and blockchain is likely to enter the conversation. For instance, for managing royalty rights.

We have high expectations from these new technologies, as they will further improve the customer experience. However, we need to bear in mind that these technologies can have negative side effects.

**Exhibit 2: The essential eight technologies**

Companies in every industry, not just E&M, must reckon with these innovations.




Source: PwC

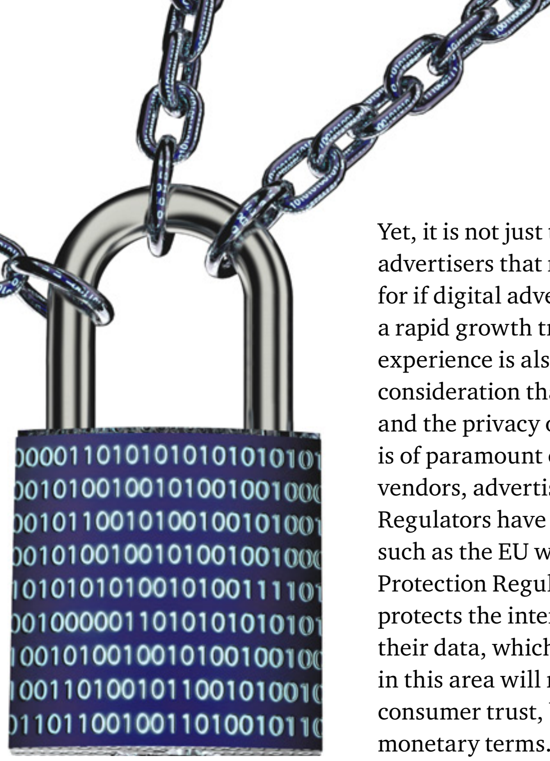
### Technology is driving new revenue streams for gaming industry

The gaming industry is a great example of how new technologies can drive additional revenue growth. Advancements in VR and AR generate new revenue streams from both a hardware and software perspective, and although arguably still in their infancy, we see their potential starting to materialise. In addition, increasing mobile device capabilities mean that serious gaming on these devices looks ever more likely. Both lead to a significantly increasing addressable market.

Netherlands-based Spil Games, for instance, reached 300 million mobile game downloads in March 2018, thanks chiefly to its quirky Troll Face Quest series. Spil has stated that augmented reality (AR) and VR "will feature heavily in many future games"; in general we can expect a glut of AR games to arrive later in 2018 as Apple and Google promote their mobile AR platforms (ARKit and ARCore respectively). Dutch developer Vertigo Games recently released an expansion for their popular VR shooter Arizona Sunshine, which broke sales records for standalone VR games when it was launched in 2016.

One of the most fascinating developments is the further emergence of mobile games as an important esports vehicle. Amazon first tested the waters in late 2016 with its Champions of Fire tournament of mobile game titles, but already Clash Royale and Hearthstone are established on the circuit, with more ambitious titles to follow, such as Arena of Valour. Meanwhile, Fortnite Battle Royale, the runaway success story of 2018, has owner Epic Games willing to provide 100 million US dollars (85.8 million euros) in prize money, and launched its first mobile version in March 2018. The lower entry barrier for such games – a smartphone or tablet as opposed to a fast PC – could lead to a major democratisation of a viable competitor base of esports. Platform tech companies need to be aware of this – an app that enables the smoothest possible esports experience, such as that perfected by poker apps, is likely to have pick-up in the high tens of millions.

We should sound one note of caution for the wider E&M industry. This surge in consumer' gaming time is partly substitutional, rather than incremental. The success story of gaming may well come at the expense of reduced leisure time spent on other forms of entertainment and media experiences. We suggest other media to investigate how they can incorporate this shift into their own business models.



## 4 Trust: Brand safety and data protection head the list of advertiser priorities

Although digital focussed companies still show significant growth, it is not all blue skies. These companies need to be aware of their role in society. We have seen recent examples in the news of large international players getting a hit from legislators, investors and customers due to mismanagement of consumer data and inappropriate links between content and advertisements.

Together with consumer behaviour and potential legislation, the news will undoubtedly have a profound effect on the broader ongoing digital ad strategy of the industry. Some have suggested that bad publicity, as we have seen in 2017 and 2018, temporarily tip the balance back in favour of traditional media.

The rising importance of data, and the central place that the usage, storage, sharing, mining and safety of consumer data plays in the emerging landscape, is pushing trust to a central position.

While brand safety and protection can be a limiting factor for a company if not acted on in a timely manner, it can also be a differentiator and fuel further growth. Companies that enjoy the trust of everyone they do business with will enjoy a competitive edge over those that do not. Trust will therefore be a vital determinant of the sector's ability to attract and retain revenues in the future. We differentiate five dimensions of trust, as summarised in exhibit 3.

Yet, it is not just the concerns of advertisers that need to be accounted for if digital advertising is to remain on a rapid growth trajectory. The consumer experience is also an extremely important consideration that needs to be addressed, and the privacy of individual consumers is of paramount concern for ad-tech vendors, advertisers and platform owners. Regulators have already made moves, such as the EU with its General Data Protection Regulation (GDPR). GDPR protects the interests of consumers and their data, which means that mistakes in this area will not just be damaging to consumer trust, but also highly costly in monetary terms.

Though GDPR is an EU regulation, its impact has a global scope, as countries outside the EU bloc seek legislative parity and multinationals based outside the EU are forced to either comply or cease operations in the region. This is especially challenging for multinational ad-tech vendors. These vendors often do not have the consumer-facing platforms necessary to obtain the individual consent required to access consumers' data and provide services, such as targeted advertising based on that data. Internet advertising retains its status as a major growth story, but the past twelve months have made it a far more complex place in which to operate. This is true of the E&M world too, with decision-makers needing data of unprecedented detail and granularity to navigate this world.

**Exhibit 3: Five vital dimensions of trust**

***Is your content trustworthy?***

Advertisers are raising questions about the quality, safety and appropriateness of the content advertisers advertise against.

***Is your audience who you say it is?***

Media and academic reports have suggested that many social media accounts are bots.

***Are you taking proper care of the data?***

More E&M companies are assuming more responsibility for protecting credit card numbers.

***Are your investments paying off?***

Direct measurement of audience engagement – whether an agency is delivering the promised audience to a client – has not been answered to satisfaction.

***Is your company good for society?***

The sheer size, reach and utility of today's media platforms are resurfacing this philosophical question.

Source: PwC

> ***"The rising importance of data…is pushing trust to a central position."***

# Outlook: No stopping to the growth power of digital compared to non-digital

**Total Entertainment & Media spending (€ in millions)**

| Netherlands | Historical data | | | | | Forecast data | | | | | CAGR % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2018-22** |
| Digital advertising | 1,266 | 1,411 | 1,531 | 1,706 | 1,866 | 2,031 | 2,194 | 2,356 | 2,497 | 2,627 | 7.1% |
| y-o-y growth | | 11.5% | 8.5% | 11.4% | 9.4% | 8.8% | 8.0% | 7.4% | 6.0% | 5.2% | |
| Non-digital advertising | 1,949 | 1,932 | 1,878 | 1,864 | 1,775 | 1,759 | 1,715 | 1,706 | 1,660 | 1,651 | -1.4% |
| y-o-y growth | | -0.9% | -2.8% | -0.7% | -4.8% | -0.9% | -2.5% | -0.6% | -2.7% | -0.6% | |
| Digital consumer (exc. internet access) | 545 | 728 | 954 | 1,224 | 1,445 | 1,615 | 1,751 | 1,880 | 1,989 | 2,095 | 7.7% |
| y-o-y growth | | 33.7% | 31.0% | 28.3% | 18.0% | 11.8% | 8.4% | 7.4% | 5.8% | 5.4% | |
| Non-digital consumer | 4,426 | 4,283 | 4,272 | 4,259 | 4,264 | 4,225 | 4,238 | 4,218 | 4,182 | 4,142 | -0.6% |
| y-o-y growth | | -3.2% | -0.3% | -0.3% | 0.1% | -0.9% | 0.3% | -0.5% | -0.9% | -0.9% | |
| Total digital E&M | 1,811 | 2,140 | 2,485 | 2,931 | 3,311 | 3,646 | 3,945 | 4,236 | 4,485 | 4,722 | 7.4% |
| y-o-y growth | | 18.2% | 16.1% | 17.9% | 13.0% | 10.1% | 8.2% | 7.4% | 5.9% | 5.3% | |
| Total non-digital E&M | 6,375 | 6,215 | 6,150 | 6,123 | 6,039 | 5,984 | 5,953 | 5,924 | 5,842 | 5,793 | -0.8% |
| y-o-y growth | | -2.5% | -1.0% | -0.4% | -1.4% | -0.9% | -0,5% | -0.5% | -1.4% | -0.8% | |
| Total | **8,186** | **8,354** | **8,635** | **9,053** | **9,350** | **9,630** | **9,898** | **10,160** | **10,327** | **10,515** | **2.4%** |
| y-o-y growth | | **2.1%** | **3.4%** | **4.8%** | **3.3%** | **3.0%** | **2.8%** | **2.6%** | **1.6%** | **1.8%** | |

Source: PwC, Ovum

## Total Entertainment & Media market (€ millions)

Even in a small country as the Netherlands, the E&M industry is a multi-billion industry. E&M spend is an important share of the wallet of consumers as well as corporates who advertise via various media types. From a revenue perspective, we expect the local market to increase by 2-3% year-on-year supported by innovation, positive GPD growth and very low unemployment rates. These economic conditions will free up marketing budgets and will give households the ability to spend more on E&M products and services. We do acknowledge that there are uncertainties on a macro-economic level, for instance regarding international trade and, more E&M specific, international regulatory exposure towards social media platforms, which can have a major impact on the E&M industry.

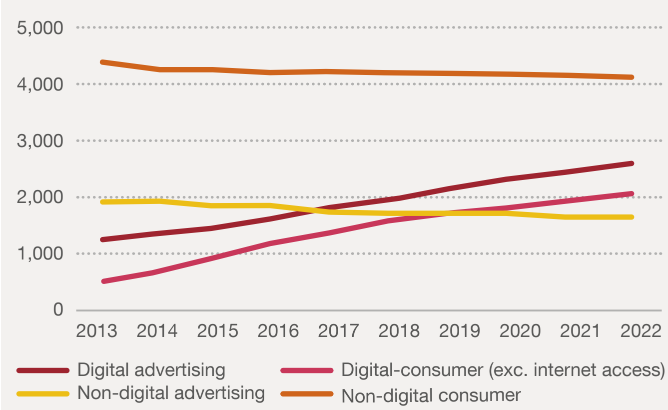
The total Dutch E&M market had a turnover of 9.4 billion euros in 2017, which we expect will increase to 9.6 billion euros in 2018. We emphasise that as from 2018 we exclude Internet access as part of the E&M Outlook 2018-2022. We have restated historical numbers.

Of the 9.6 billion euros, 3.6 billion euros is related to advertisement revenue (primarily from internet advertising) and 6.0 billion euros to consumer spend (primarily from TV and video revenue, followed by revenue from music, videogames and newspapers).

## Digital vs non-digital E&M (€ millions)

Digital advertising is leading the digital charge and exceeded non-digital advertising in 2017. Non-digital consumer revenue remains comfortably ahead of digital but is gradually declining, mainly due to consumer magazines and newspapers and a shift from physical video games to their digital successors.

**Total Entertainment & Media market revenues (€ in millions)**



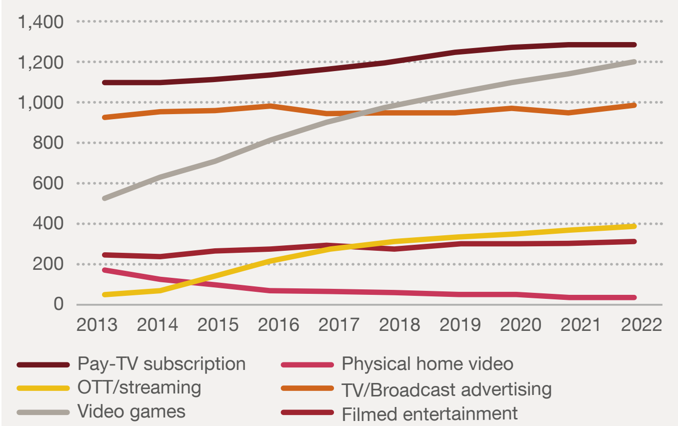

Source: PwC, Ovum

Digital consumer spend shows a CAGR of 7.7%, where video games is spearheading the growth in digital consumer revenue, mainly due to the success of mobile gaming. Its growth is such that video game revenues have a chance of overtaking Pay-TV revenues as the pre-eminent format of video-based entertainment as early as 2024.

## TV and Video entertainment market overview

OTT/streaming is another fast-growing consumer revenue line, recording growth of 20% in 2017. There were some 21 different OTT TV/video providers in the Netherlands in 2017, like Netflix, Amazon Prime, HBO Go, but also a local initiative called YoufoneTV. Recently, Sony Picture Television Network launched its Film1 service in June 2018, with more than 300 films on demand, while NLZiet launched an Apple TV app in May 2018.

**TV and Video entertainment revenues (€ in millions)**



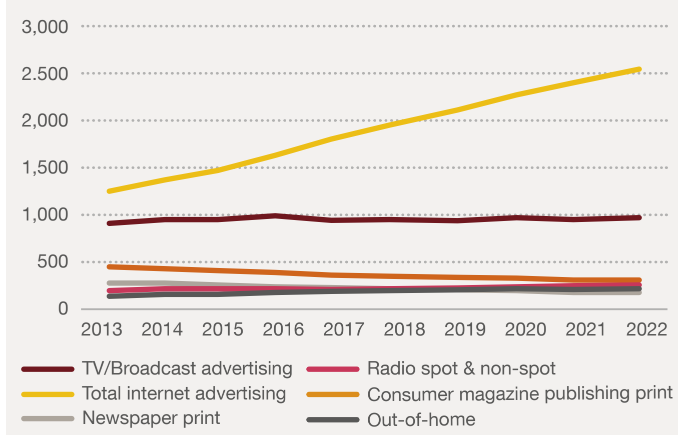

Source: PwC, Ovum


*"...technology used for internet advertising is gradually providing opportunities for traditional media segments."*

## Advertisement market overview

Internet advertising accounts for more than 50% of the advertising market in the Netherlands, and will move up to 60% by 2022. As consumers continue to shift their attention towards digital and particularly mobile media, more advertising spend will migrate to – or be set aside for – platforms that deliver ads to consumers in such a context, thus driving market growth. But while Internet advertising might be eating into ad spend on other, non-digital platforms, it is still part of the same mix: for many advertisers, the 'Holy Grail' continues to be the effective combination of 'traditional' advertising, such as TV, and digital advertising. The technology used for internet advertising is gradually providing opportunities for traditional media segments like OOH and linear TV.

**Advertising revenues (€ in millions)**




Source: PwC, Ovum

More detailed information at segment level is available on www.pwc.nl/outlook



# AI is great but we do need supervision

By Mark Kuijper

It would be going too far to say I'm a big Netflix fan, but every once in a while I'm 'gripped' by a well-done series. What I enjoy most is sharing my excitement about the plot twists and turns with family or friends. The question is whether that will still be possible in a few years' time. I can imagine that everyone will soon have their own personal storyline, geared to their own interests. Artificial intelligence (AI) can make this happen.

I know – there's a lot of scepticism about this technology in the Entertainment and Media sector. And that's entirely understandable in an industry whose businesses derive their right to exist and their added value from human ingenuity and sharing people's creative ideas. The E&M sector's most successful products and services come about when creative content is linked to brands and the target group's expectations.

## Our surfing behaviour determines the advertisements we see

And yet AI is already 'entertaining' us. Just think of the Facebooks and Googles of our world. They offer us personalised suggestions and promotions based on our web surfing behaviour. That in itself is quite convenient, because I'm not interested in advertisements for women's fashion or skin care products.

But AI can also aid genuine creativity. Two years ago, Sony in Japan released the pop tune 'Daddy's Car'. If you didn't know better, you'd think it was a lost recording by The Beatles. In reality, Sony produced the song using an AI system called Flow Machines.

## When will an AI system create a hit song?

How long will it be before a song composed by an AI system heads the Top 40? It's a valid question. In a survey that PwC conducted last year among E&M managers, a quarter of the respondents expected that AI would be able to create a hit song by about 2025.

## Algorithms will impact personal lives

I think that human beings should, in any case, remain in charge in using AI. In addition to its advantages, AI also has a downside. There is a risk that AI will itself start making AI – that robots will start to build robots. Algorithms are already selecting job candidates, deciding whether applicants qualify for a mortgage, or picking out people at airports who might be terrorists. In the future, influenced by machine learning and other forms of AI, algorithms will increasingly take decisions that impact our personal lives.

In my opinion, those algorithms should be subject to certain rules and independent supervision. The EU's new General Data Protection Regulation already takes a step in that direction. The new rules require businesses to explain the decisions taken by their computers. People who believe that they have been treated unfairly by an algorithm can therefore seek redress. But businesses are obviously wary of revealing the way in which their algorithms work, for competition reasons. The solution may lie in an independent third party, such as an accountant.

## Supervision based on trust

It would be a good idea to make agreements about this as soon as possible. Some aspects can be legislated, but businesses must also acknowledge their responsibility in this context. A code of conduct would be appropriate, in my opinion. Organisations could also work with the supervisory authority to draft industry-wide guidelines. In this way, we are able to trust AI more and get its maximum benefits.

For the past fifty years, the Dutch Foundation for Broadcast Advertising (Ster) has been selling advertising space around public broadcasting programmes, under the authority of the Dutch Ministry of Education, Culture and Science. Ster contributes substantially to the Dutch national media budget and reaches an audience across all platforms of public broadcasters: TV, radio and online outlets. Based on decades of unique research about listening and viewing habits and the effects of commercials, Ster knows how to predict and optimise the success of commercials.

# Dutch Foundation for Broadcast Advertising (Ster) takes a new course

## Interview with Ster director Frank Volmer

***A downward trend in the linear TV advertising market and a relatively modest position in the digital domain induced Ster to rethink its business model. Since he became director at Ster in 2016, Frank Volmer's business objectives revolve around three main pillars: a new commercial policy, digital acceleration, and making the internal organisation of Ster ready for this acceleration. Volmer discusses, for instance, Ster's new pricing model in the linear domain and emphasises the necessity for Ster to monetise the large potential digital ad inventory. Yet, all new activities need to fit within Ster's main public tasks, its restricted commercial policy, and rules and regulation, such as GDPR.***

Ster has a strong position in the linear TV and radio domain. "Ster is like a well-oiled machine when it comes to exactly calculating and predicting the success of TV and radio commercials. These calculations are almost like higher mathematics", says Frank Volmer. "Ster achieves optimum performance in linear TV advertising as we have a conversion of viewing time into total net ad spend of ninety percent. At the same time, we have a relatively high GRP pricing level in the market, compared to commercial players such as RTL, SBS and BrandDeli."

### Restricted commercial policy

Ster cannot exploit all available commercial opportunities, as it pursues a restricted commercial policy. For instance, as opposed to commercial players, Ster is not allowed to have commercial breaks in the middle of a programme. Volmer: "But instead of seeing such a restriction as a barrier, we always turn it around and treat it as an asset, because our commercial policy distinguishes us from other players in a positive way. Advertisers should focus on quality content, because this will provide them with more added value. To be honest, I think too many TV commercials do not add to a positive viewing experience and will only drive more viewers to OTT players like Netflix. Indeed, it is commercially unwise because players in the current market for linear TV can't afford to lose more of their audience. I'm an advocate of fewer commercials but better results."


*“…refusing consent to share data almost works like an ad-blocker.”*

### Ministry of Education, Culture and Science

The annual payments of Ster to the Dutch Ministry of Education, Culture and Science (Dutch: OCW) amount to an average of broadly 200 million euros. However, the downward trend in the linear TV and radio advertising revenues, caused by diminishing viewing and listening time, results in lower payments to the Ministry. Volmer: “So far, it was always possible to make up this deficit using the General Media Reserve, but this reserve will dry up soon. For the first time the Minister of OCW has emphasised the causal connection between the public media budget and the performance of Ster. Public Broadcasters (NPO) and Ster will now need to find ways to boost their returns.”

### Fixed base price

An important decision Ster made in linear TV advertising is the introduction of a fixed base price for everyone, without discounts and compensations, such as consultancy contracts and so-called ‘kickbacks’ that media agencies often receive from broadcasters. The reason to introduce this base price was threefold: bigger advertisers received volume discounts while their ad volume was decreasing; there is a growing demand of small and medium-sized advertisers for public television advertising; and an increasing number of contracts, that were comparable in volume, often had different discount prices.
Volmer: “I sometimes make the comparison with kitchen retailers who give their customers huge discounts after some bargaining. Ster is now more like IKEA, which offers good products at a fixed price without special offers and discounts. Yet, this comparison does not apply one hundred percent, because if demand decreases we do use indexes to lower the price a bit, and we also have special prices around special events, such as the FIFA World Cup. Still, our point of departure is that all our clients get the same price.”

### Less target groups

Ster also reduced the number of target groups. In 2017, Ster still had about 140 target groups, all with their specific pricing levels. Instead of having many different target groups, Ster now looks at the total group of TV viewers and radio listeners (linear part) and only uses a limited number of differentiators: male/female, high/low education, and a few age groups and a b-to-b target group. Volmer: "Combining these differentiators results in a simple matrix of some ten to twelve target groups. We still make analyses, but these do not affect our pricing level anymore. If our clients want specific targeting, they can use our digital inventory where programmatic offers plenty of possibilities for targeting."

## Unhealthy ecosystem

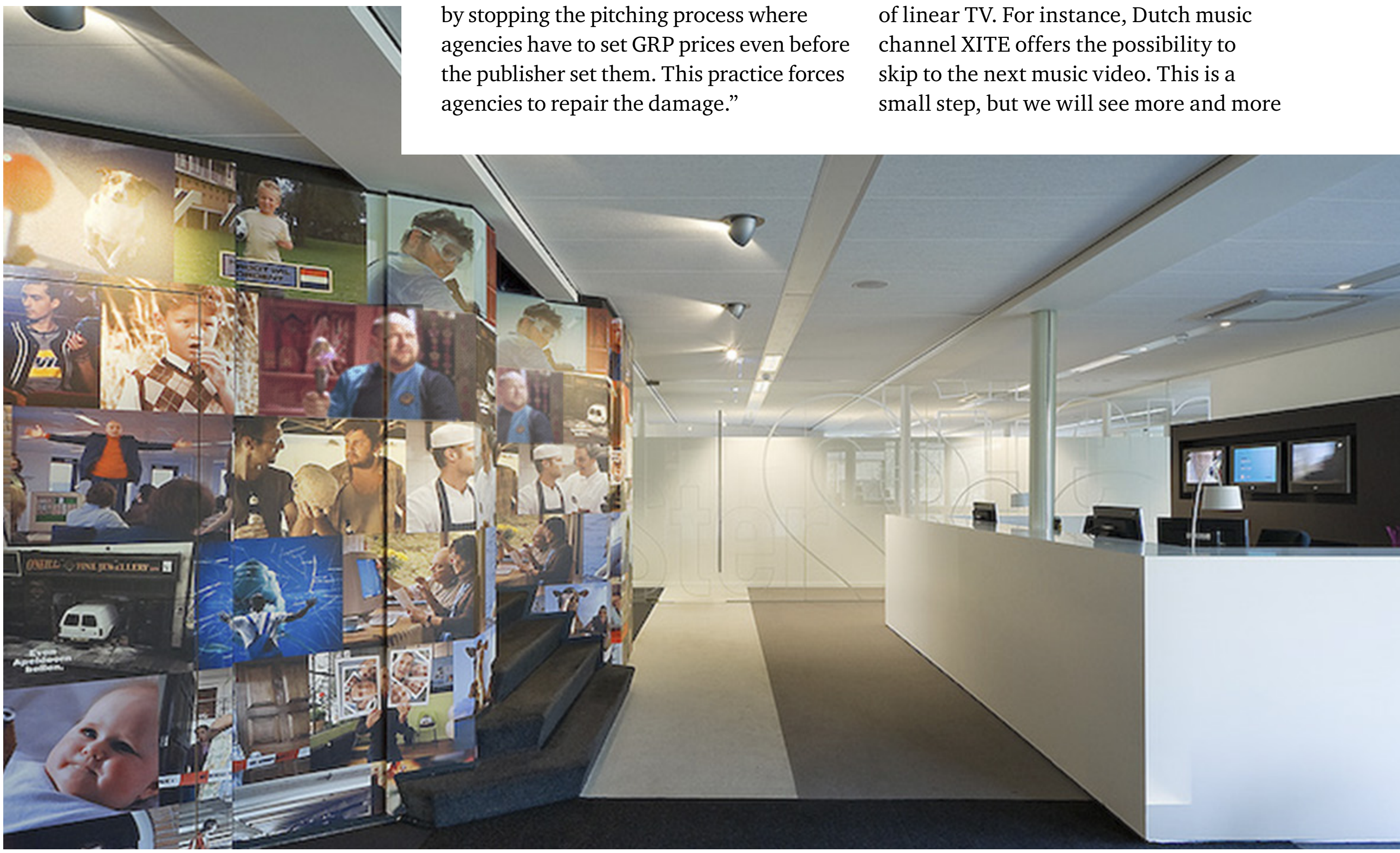
Volmer: "Excluding kickbacks and other commissions from the price calculation makes the advertising ecosystem simpler and healthier. In my view, media agencies cannot provide independent advice to advertisers if other stakeholders in the ecosystem also pay them. But I am not saying media agencies created this unhealthy and complex ecosystem; we all created it together. Besides, media agencies also suffer the negative consequences of the system sometimes."

"You need to step out of the advertising ecosystem and look at it objectively to realise the ecosystem is unhealthy and too complex. Why not pay media agencies for their added value in the whole process instead of maintaining non-transparent procurement practices? Some media agencies still do not realise that these practices made the ad business unhealthy, but fortunately others seize the opportunity to try and bring about change together with their stakeholders. And advertisers can help to cure the industry by stopping the pitching process where agencies have to set GRP prices even before the publisher set them. This practice forces agencies to repair the damage."

Over the past ten years, Ster paid around eight million in kickbacks a year. Transposing this number to the total advertising market, Volmer estimates the amount of kickbacks in the market to be 175 million euros. Volmer: "Ster taking eight million euros out of the ecosystem did not have serious consequences, but taking 175 million euros out of the market would cause a serious financial shock effect. Other market parties will therefore choose a more gradual solution."

## Addressable TV

One potential solution to boost results in linear TV advertising is addressable TV, which is a hot topic in today's market. Volmer sees commercial breaks that offer targeted commercials on linear TV as the way forward. Volmer: "Although this is still some way off, linear TV already offers some features on smart TVs that may pave the way to the further digitalisation of linear TV. For instance, Dutch music channel XITE offers the possibility to skip to the next music video. This is a small step, but we will see more and more



*“In today’s market, working out a solution for the cookieless serving of pre-rolls and display ads is in full blast.”*

such features in the future. It’s a very exciting thought that all the things that are possible in the digital domain will also be possible on linear TV. Targeted advertising is one of them.”

### Paying for content with money, attention or data

Volmer wants the audience to be in the driver’s seat with regard to watching ads and content. OTT platforms are the perfect environment for this and Hulu can serve as an example here. “At Hulu viewers can watch a film by paying a certain amount of money, but they can also decide to watch three commercials of their choice and pay nothing for watching the film. This way, you show your audience that you can see content without commercials by paying a subscription fee, or you can watch the content after watching self-selected commercials. Another option could be to fill in a questionnaire before watching the film, which means you pay by providing personal data. Based on these data you then get free content and a well-balanced number of targeted commercials. Of course, public broadcasting has a public service task, as it is paid out of public funds. Is it then desirable to hide content behind a paywall? That is a topic for discussion.”

### Digital domain

When Volmer started working at Ster two years ago, he was surprised to see that Ster barely monetised its digital ad inventory. Volmer: “Although the digital ad inventory (i.e. page views and video starts, ed.) in public broadcasting is considerable, Ster does not have the necessary banner positions or pre-rolls and only manages to bring in a few million euros in revenue. Ster does not have a market position in the digital domain comparable to commercial parties. This is partly because it’s not always clear what Ster is, or is not, allowed to do in this domain, but also because we are still building a focused team of digital professionals.”

### Public interest task

The activities of Ster always have to be part of its main public tasks and are under supervision of the Dutch Broadcasting Commission and the Dutch Ministry of Culture Education and Science (OCW). Volmer: “Developing new digital initiatives can be a struggle, because many stakeholders have a say in it. As Ster and the Dutch public broadcasters (NPO) have a public interest task, they cannot explore boundaries and just try new things to see how it goes. For instance, we cannot afford to be accused of violating privacy regulations (GDPR). If we are not sure about a possible solution, we always decide



to play safe and do not wait for the Dutch Data Protection Authority to rap us over the knuckles. We offer our advertisers a safe ad environment, which also justifies the fact that we are premium priced."

## General Data Protection Regulation

The General Data Protection Regulation (GDPR) heavily affects the digital market, including programmatic advertising. As a result of GDPR, Ster has lost some of its inventory due to consumers who refuse to give their consent to share their data. Volmer: "The refusal of consent has to do with the way consent is asked and the fact that it's not yet clear who is responsible for that. You need cookies that contain some data of the web surfer in order to serve online ads, so refusing consent to share data almost works like an ad-blocker. In today's market, working out a solution for the cookieless serving of pre-rolls and display ads is in full blast."

## Local content for a global audience?

"The TV advertising market is under pressure, and therefore so is Ster and its contribution to public broadcasters", Volmer concludes. "We are working hard to innovate our service offering, and improve ways to measure our added value. New technologies enable this ambition, but it also requires a different mindset in certain parts of the organisation. Regardless of our efforts, we need to be realistic and understand that part of the viewing time will move to international players. A challenge for the Dutch broadcasting industry is to see how we can organise ourselves and benefit from this trend, for instance by offering our local quality content to a global audience."

# Future of video

## Changing video consumption patterns

By Vikram Dhaliwal, Steven Pattheeuws, Maarten Heeren and Jurjen van der Werf

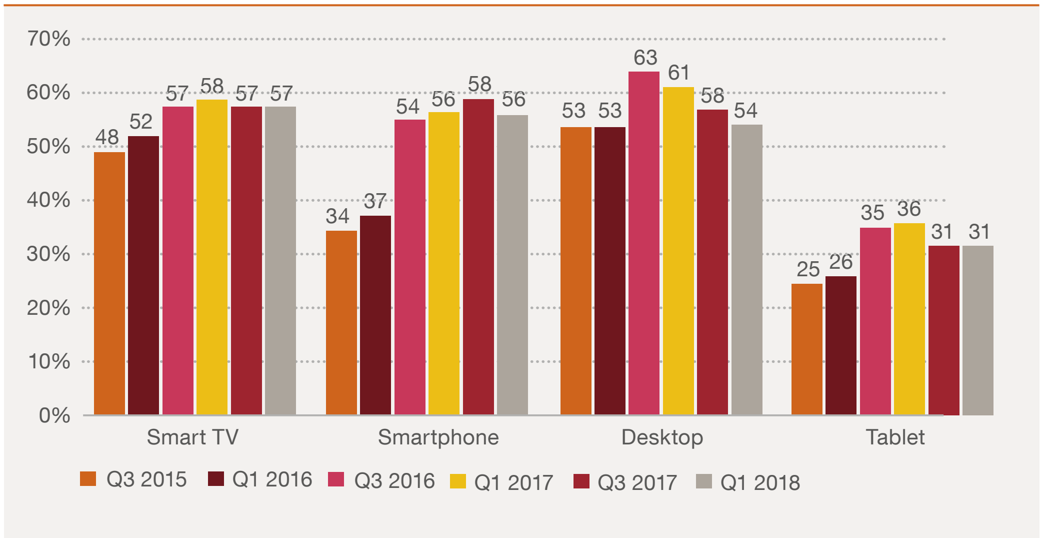
*TV broadcasters were always very skilled at determining which content to produce or source and when to air it, in order to maximise cost versus viewer numbers. Yet, this business model is changing rapidly, as more and more viewers (binge) watch content on-demand on their own device in the train, bedroom or gym. The arrival of mobile devices connected to fast broadband drives this change in viewing behaviour, and has spurred innovative OTT players like Netflix, Hulu and HBO to deliver their content straight to the consumer. With a growing number of viewers watching on-demand content across TV and online channels/libraries, loyalty to specific TV channels or platforms is declining. We also see social media increasingly driving large numbers of viewers to specific online videos.*

## More and more video content

Content production continues to grow. In the US, we see more series being produced and more money being invested in each episode. Moreover, major content providers are investing more than ever in new series, as demonstrated by Netflix and HBO. Netflix's tremendous spend on new content amounts to 12-13 billion US dollars this year, which is 3-4 billion more than last year.[1] In fact, Netflix's production of 80 feature films exceeds that of any other Hollywood studio. The other major content producer, HBO, spent an astronomical 15 million US dollars on production costs for each episode of its Game of Thrones series. Another driver of content is that existing content is more widely distributed across geographical markets.

In the first half of 2018, Netflix and Amazon Prime overtook pay TV subscriptions in the UK, with Netflix, Amazon Prime and Now TV having 15.4 million subscribers in the first quarter of 2018 versus 15.1 million subscribers to Sky Virgin Media and BT. According to research by TV regulator Ofcom, the most important reason for switching to streaming services is the original and exclusive content created by Netflix and similar parties. For example, *The Crown*, which is only accessible

**Weekly penetration rate of selected devices for watching online video among millennials worldwide from 3rd quarter 2015 to 1st quarter 2018**

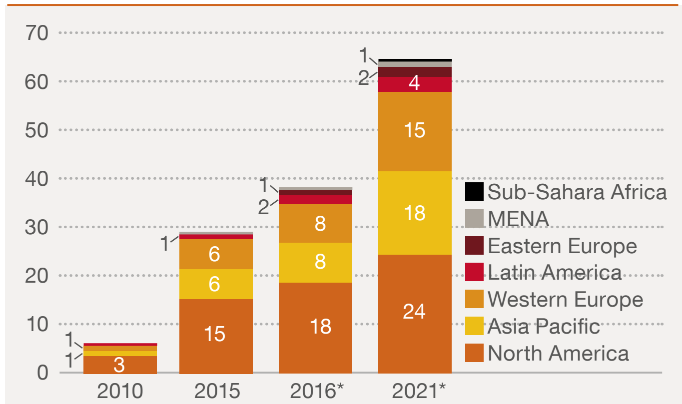



Source: Ampere Analysis

1) http://telecoms.com/490636/telecoms-and-media-industries-driving-the-highest-ma-year-ever/

*"...linear TV remains one of the last mediums to reach large numbers of consumers at the same time."*

**Over-the-top (OTT) TV and Video revenue worldwide from 2010 to 2021, by region (in billion USD)**

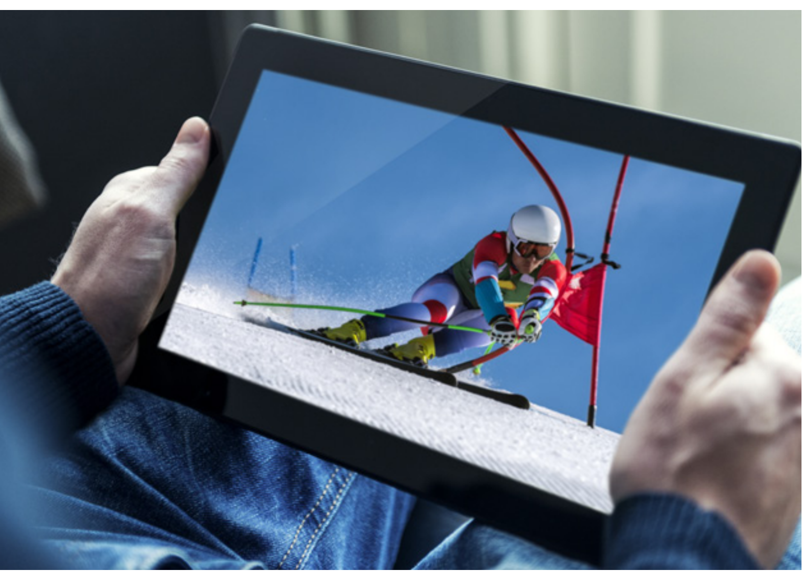



Source: Digital TV Research

through Netflix, is an immensely popular show. This highlights how challenging it is for traditional broadcasters to succeed online.
The shift towards online and non-linear viewing is bad news for linear TV players. Magma reported that as of last year, advertising spend in alternative video formats (e.g. online video via OTT, social, VOD) has surpassed spend in linear TV. In 2017, we witnessed a major fall in linear advertising spending in the Netherlands.

### Linear TV is on the decline ... is there a new equilibrium?

Linear TV is on the decline. In the US, TV viewing minutes declined by another 2% this year. The share of cord-cutters and cord-nevers in the viewer base grew from 17% to 30%.



US sports live audiences declined by 10% this year. In the UK, TV viewing minutes dropped by 10% in the 18-24 age segment and by 5% in the 25-40 age segment, with a clear shift to VOD and delay TV. The Netherlands is also experiencing a clear decline in time spent in front of the TV screen in the under-35 segment, although at a slower rate than initially expected. Some content lends itself very well to linear TV: sports event, major live happenings and certain live shows like The Voice. There is still a future for linear TV and it still represents an important opportunity for advertisers because it is one of the last remaining types of media that can reach large numbers of consumers at the same time. Big mass marketing brands like Coca Cola or Heineken therefore continue to regard linear TV as an important channel for reaching mass audiences without overlap.

Yet, while major live sports events remain a big primetime attraction for linear TV, their viewership is on the decline. The opening ceremony of the PyeongChang Winter Olympics attracted 28.3 million viewers according to Nielsen, down 11% on the 2014 Sochi opening ceremony. NBC's prime-time Olympics programmes saw an overall double-digit decline, with a record drop on Monday 19 February 2018 of 31% compared to a similar night four years before. Similarly, other major sports events are experiencing declining viewership. Last year's NFL showed a 17% drop in viewership per game compared to 2015, while NBC's national broadcast of NHL matches fell by 20%.

Another factor is that OTT players are starting to go after live sport. They have begun to invest selectively in sports rights and make enriched F1 video content available directly to fans via subscription. Pay TV broadcasters are exploring options for OTT packages to reach the younger segments. Google has launched YouTube TV, and Amazon is investing selectively in American football rights, although not exclusively yet.

These trends undermine the natural 'value proposition' of linear TV to advertisers: providing access to large mass audiences around live sports and live major events. Broadcasters will need to consider how to complement their linear channel with other OTT linear live channels (online, mobile app, etc.) and seek ways to attract viewers to them and to linear channels (e.g. using social platforms), particularly in the under-35 segment. Sport and, by extension, major live shows may become the next big battleground.

## So what?

These trends are both a threat and an opportunity for all players in the value chain. For some, the opportunities are clear and right in front of them. For others, it will be a challenge to reinvent their business model. We see five potential ways to be successful in the market:

| | Play | Content | Business model(s) | Examples |
|---|---|---|---|---|
| 1 | HBO model | • Premium quality<br>• Exclusive, channel independent<br>• Content owner | • Subscription<br>• In show advertising | • HBO |
| 2 | Pure Platform Play | • Aggregate content from different channels | • Subscription<br>• In show advertising | • Hulu |
| 3 | Netflix/Amazon | • Premium quality<br>• Owned content | • Subscription | • Netflix<br>• Amazon |
| 4 | Social media platforms | • User generated<br>• Live videos<br>• Social videos: shared across social network | • Advertisements<br>• User engaged advertising<br>• (Subscription add free model TBC) | • Facebook<br>• YouTube |
| 5 | Niche Channels | • Niche content (Boxing, Opera, Golf, etc.) | • Subscription<br>• Targeted Advertisements | • Discovery Channel |

Source: PwC

Taking these different strategies into account, media companies need to redefine their portfolios and business models to stay competitive in this disrupting video landscape.

## Broadcast media groups

Broadcasters feel the pain of stagnating, or even shrinking, advertising income. With linear TV on the decline, they need to figure out their online strategy as well as how to 'shrink to greatness' in the remaining linear TV arena. They will find that the impact of international blockbusters will decline as their viewers shift to other video formats. Moreover, the pull from blockbusters to cheaper programmes will not work anymore in the online world. For example, CSI used to be a blockbuster for broadcasters, earning them a high profit thanks to a relatively low sourcing cost. They would reinvest these profits in producing local content that attracted relatively smaller audiences. To survive in the linear TV arena now, however, broadcasters will have to scale down their existing cost structures and content acquisition model to fit the new reality.

We see two potential strategies for broadcasters, each requiring a different set of capabilities that will define their success. The first is to compete in the online arena by building the right online library while shrinking to greatness in linear TV with niche programmes and major live events. To succeed at this, broadcasters will have to build a different set of capabilities. Traditionally, the strength of broadcasters lay in programming time slots; they knew what kind of programme to air during which time slots to pull as many viewers as possible. With online video, however, time slots have ceased to matter, so broadcasters need to build the right content library to attract customers.

Building the right content library is essential to winning in the online arena, but it is also one of the most difficult and expensive capabilities to develop. According to the UK TV regulator Ofcom, the most-cited reason for switching from linear TV to online streaming is the latter's original and exclusive content. It took Netflix and Amazon multiple years to build a library that allowed them to amass the subscriber

base that they have now. Moreover, each year they invest tens of billions in producing and acquiring new content for their library.

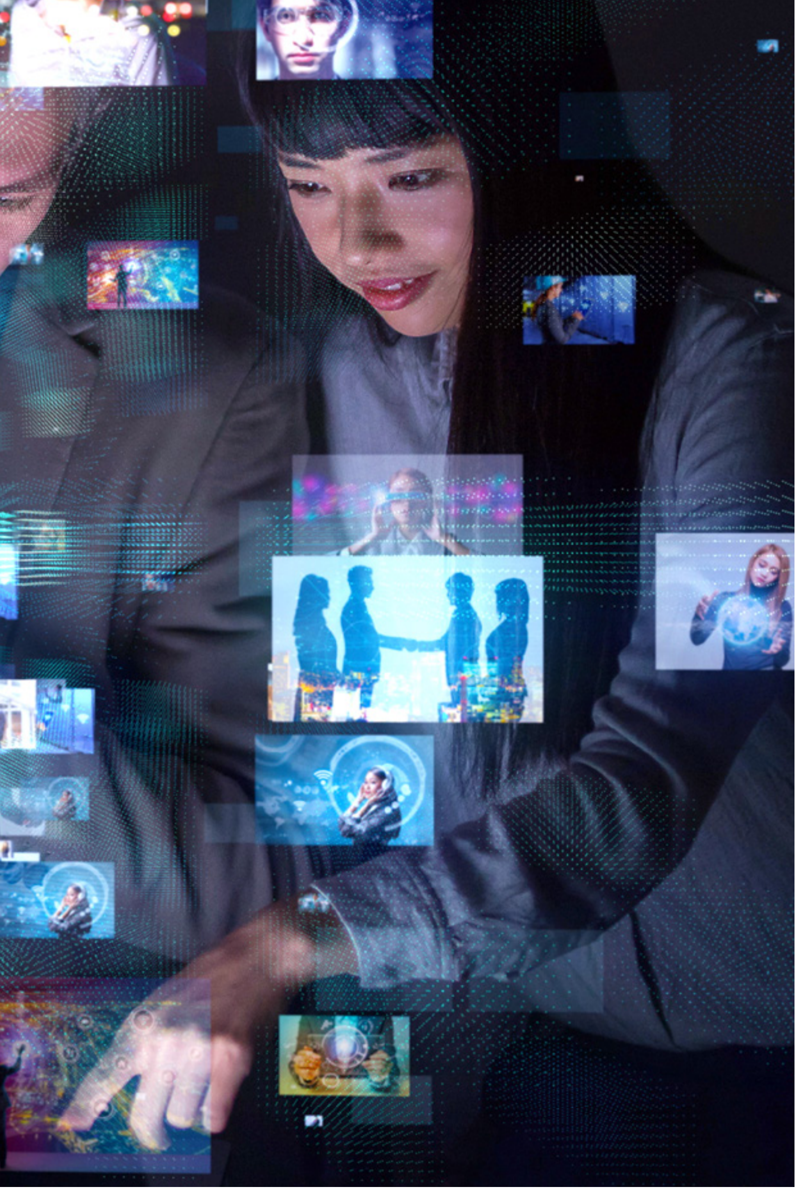
At the same time, broadcasters that still want a presence in linear TV will have to shrink to greatness by focusing on high-engagement live programmes, which do especially well with specific audiences, and major live events that meet group viewing needs.

Some markets may also offer a local content opportunity. French viewers, for example, are still keen on watching French-spoken locally produced content. Another example is RTL 7 in the Netherlands, a channel that brands itself as 'only for men'. Shrinking to greatness also means scaling down cost structures in order to remain competitive in the lower equilibrium of linear TV. OTT players are also investing more and more in producing local content, a strategic move that also anticipates potential regulatory changes, which may set a certain local content quota for online libraries. The EU, for example, is looking at legislation that will require internet streaming services to have at least 30% of their library consisting of European content.[2)]

### Social media platforms

Social media platforms are expanding their activities into online video. Because they already own and operate an online platform with millions of users, their main issue is how to monetise that platform with video. There is no one single solution and the only way to find the optimal monetisation model is by experimentation, ranging from pure ad-based to user-paid – with either a subscription model or pay-per-view or premium model.

2) https://variety.com/2018/digital/global/netflix-amazon-european-content-quota-30-percent-law-1202788631/



Key for social media platforms is integrating the social aspect into watching video. Players like Facebook and Instagram are already doing this by letting people post user-generated videos on timelines. Moreover, Instagram and Facebook now allow viewers to post live videos, which is nothing more than live streaming your current party or excursion and letting all your friends see you. In addition, Facebook's Watch Party is experimenting with providing a 'shared viewing experience' on non-user-generated videos[3]. This feature enables group watching of recorded videos at the same time.

The big challenge for social media platforms is to find the right monetisation model. Ads inserted in between videos spoil the user experience. As a result, the platforms are considering an ad-free model, but that would mean users have to pay. According to Facebook COO Sheryl Sandberg, their targeted advertising model came in for a lot of criticism and they are now considering a subscription-based ad-free model.[4]

Live broadcasting of major events may be a way for social media platforms to steal mass advertising revenues from linear TV. A few examples have already demonstrated that there is great potential here. One of the most famous live broadcasting events, which broke the live viewing record, was Felix Baumgartner's skydive from the edge of space. More than eight million people flocked to their live-stream device, making it the largest number of concurrent live streams in the website's history at the time.[5] Since then, live events have broken record after record and more platforms are live-streaming major events. For example, Twitter's live-stream record was Trump's inauguration, with 6.8 million unique viewers tuning in as Trump took the oath of office.[6] Nike this year achieved 13.1 million live views on Twitter, Facebook and YouTube for their Breaking2 live-stream coverage of the attempt to break the two-hour marathon record.

*"We see great potential in live broadcasting of major events for social media platforms..."*

To find a success formula for attracting mass viewership with live broadcasting, social media platforms need to understand how the market will respond to certain events. Cracking this code will put social media platforms in head-to-head competition with linear TV on the very feature that is keeping it alive: mass viewing without overlap.

What remains uncertain is how social media platforms are going to compete with OTT payers. Although they have a huge advantage in that they already have a tremendous audience using their platform for social media purposes, their content is mostly user-generated and centred around live events. However,

3) https://techcrunch.com/2018/07/25/facebook-what-is-a-watch-party/
4) https://www.cnbc.com/2018/04/06/facebook-sheryl-sandberg-users-would-have-to-pay-to-opt-out-targeted-ads.html
5) https://www.theguardian.com/media/2012/oct/15/felix-baumgartner-skydive-youtube
6) https://www.forbes.com/sites/brettedkins/2017/01/24/record-6-8-million-watched-trumps-inauguration-on-twitters-live-stream/

the major social media platforms have deep enough pockets to invest heavily in building the right content library able to compete with Netflix and the like. In fact, this could be a very smart move for them as it makes them less dependent on using user data to generate revenues and, therefore, less prone to criticism or new privacy scandals.

### OTT players

It is proving hard to find the right success formula for breaking into the OTT market as number three after Netflix and Amazon. These two businesses currently dominate the OTT market, with 69% of OTT subscription revenues between them in the US market. Although their duopoly gives them a luxury position, it will be a major challenge to sustain their growth trajectory by conquering new markets and optimising their position in existing markets, where they are already big. Yet another attempt to launch a competing broad video streaming service is newly launched NewTV, a one billion US dollar investment supported by Disney, Alibaba and NBCUniversal.

In our view, players that want to win in the OTT market will increasingly have to localise part of the content on offer because the ability to address local market characteristics is becoming an important success factor. For example, the market leader in India, with between 75 and 100 million active users per month, is local hero Hotstar, owned by Star India and controlled by Twenty-First Century Fox. Netflix and Amazon are producing local content to break into this market; Netflix, for example, has launched *Lust Stories*, a series of short films by prominent Indian directors, while Amazon is planning to air *Comicstaan*, a new series featuring famous Indian comedians.[7)]

### Right holders

Right holders are usually those who own the rights to major sports events, for example in football and Formula 1 racing. Their key decisions differ from content owners somewhat in that they do not have to decide what content to produce. Their issues revolve around income versus reach and the question whether or not they might be better off going to the consumer directly.

Right holders representing major sports have a vested interest in keeping the interest in sport alive across all their audiences. For example, NBC, which owns the rights to NFL football games, could cut a multibillion dollar licensing deal with Amazon Prime, which is willing to pay huge amounts to acquire content. However, they would then run the risk of not attaining the reach they want when compared to the more traditional linear TV


channels, which have a much larger audience base but much less money to spend on content acquisition.

Another related question for right holders is whether they should go to the viewer directly. For example, Formula 1 has launched a beta version of an OTT TV service for the Spanish Grand Prix this year. If this succeeds, they are planning to broadcast to their fans directly through a premium F1 option, featuring all twenty driver cameras live and a side-by-side race viewing option. The non-premium version will provide regular TV access and radio broadcasts.[8)] At first glance, this looks like a smart move that allows F1 to maximise its revenues by bypassing broadcasters.

7) https://www.cnbc.com/2018/07/05/netflix-and-amazon-are-struggling-to-win-over-indian-viewers.html
8) https://www.digitaltveurope.com/2018/04/16/formula-1-unveils-launch-plan-for-ott-tv-service/

Even so, the strategy of going to fans directly might not be the best move for all major live sports events, especially World Cups. That is because the popularity of a live event is very much country dependent. If the Netherlands is out of the World Cup, then the reach there will be extremely low compared to when the national team makes it to the semi-finals. Moreover, right owners who go to viewers directly rely heavily on the big countries being in the tournament finals (because the big countries give them the most viewers). The most recent World Cup had three relatively small countries in the quarter-finals, i.e. Belgium, Uruguay and Croatia. Right holders can hedge this risk by licensing rights to broadcasters for a fixed fee.

## Advertisers

The emergence of online video has created an opportunity for targeted advertising, but undermines the opportunity for mass advertising. Targeted advertising is an efficient way to increase the effectiveness of advertisements by tailoring and then pushing them to specific audiences. Success, however, depends on knowing which audience to target and then where to find them. Traditionally, advertisers would spend a large sum on one linear TV channel and focus on negotiating the right commercial blocks around the right programming. In targeted advertising, however, the key is knowing on which online video platforms to find consumers.

> *“Popular shows that used to be the block-busters of linear TV are now scattered across online channels.”*

Moreover, as we mentioned, targeted advertising is not the Holy Grail for all advertisers. Big brands like Coca Cola and Heineken still benefit from mass advertising because they can reach a huge audience without any overlap, whereas overlap is very likely and expensive when attempting to reach mass audiences on multiple platforms and channels. As noted, they have so far remained loyal to linear TV, but there are two other opportunities for them to consider.

The first is in-show advertising. Popular shows that used to be the blockbusters of linear TV but are now scattered across online channels still reach mass viewers without overlap. The trick here is to make sure that the product is placed or used in the show. Second, as mentioned before, advertisers may be able to find their new mass audience on social media platforms. For live broadcasting of major events, this means seeking collaboration with players like Twitter, Facebook and YouTube and helping them build the capability to attract mass audiences.

Video production, distribution and consumption patterns are changing rapidly and are disrupting the TV business. Nobody has a crystal ball to see where things are going. The only thing we know for sure is that the traditional linear TV business is going to phase out and make way for multiple different video business models. Each player in the arena will have to figure out what their strategy is going to be and then define and build key capabilities around that.

# Taxation of the digitalised economy

## Recent developments and their potential impact on the TMT industry

By Bart van der Gulik and Alexia Kardachaki

***Taxation of the digitalised economy has rapidly become one of the central items of political and tax policy agendas. Various stakeholders are considering, proposing, or have already implemented measures at an international, European and unilateral level. The most characteristic examples are the two draft directives, which the European Commission (EC) published in March 2018. Although these directives are still at an early stage of political decision-making within the European Union (EU), they provide for concrete measures, which the TMT industry should be fully aware of. In fact, the potential reach of the draft directives is broader than one would immediately expect.***

## Taxation of the digitalised economy in the spotlight

The rapidly digitalising economy is fundamentally affecting many aspects of today's society, such as employment, education, innovation, growth, business, and privacy. Modern information and communication technologies and internationalisation are profoundly changing value chains and business models, decoupling value creation from bricks-and-mortar operations and from a reliance on employees to execute business processes.

The digitalised economy gives rise to complicated tax policy challenges around value creation (i.e. where to tax?) and profit attribution (i.e. how much to tax?). These challenges highlight certain flaws of the current international tax system, which was originally designed in the 1920s to levy tax on companies based on their physical presence in a jurisdiction. This tax system has undergone only minor changes since that time. Discussions around the fit-for-purpose character of the international tax system have also been coupled with the growing public perception that certain technology companies are employing aggressive tax planning and tax avoidance practices to reduce their effective tax rate. Not surprisingly, taxation of the digitalised economy has very rapidly moved up the political agendas.

Both the Organisation for Economic Cooperation and Development (OECD), at the request of the G20, and the EU are now simultaneously working on the matter. Furthermore, certain countries have already taken unilateral measures to tax digital businesses and/or digital revenues. On 16 March 2018, the OECD has published an interim report as the groundwork for further work with the aim to publish a final report with proposed measures in 2020. On 21 March 2018, the EC has published quite concrete measures in the form of two draft directives, representing a short-term and a long-term solution (for a comparison of the work of the OECD and the EC, there is a reference to the Tax Policy Bulletin on PwC's website[1]).

The adoption of the measures proposed by the EC requires unanimity at the level of the Economic and Financial Affair Council and consultation of the EU Parliament. Both measures proposed by the EC have a proposed effective date of 1 January 2020.

## The European Commission's proposals

### The short-term solution: a 3% levy on 'digital' turnover

The short-term solution is the Digital Services Tax (DST); in essence, a 3% levy on turnover resulting from the provision of certain digital services only.

The digital services that are in scope include: (i) advertising, i.e. the making available of advertising space on a digital interface, for advertising that is aimed at users of that interface; (ii) multi-sided interfaces, i.e. the making available of multi-sided digital interfaces which allow users to find other users and interact with them, and which may also facilitate the provision of underlying supplies of goods or services directly between users (also referred to as 'intermediation services'); and (iii) transmitting

> ***"The digitalised economy gives rise to complicated tax policy challenges around value creation...and profit attribution."***

1) https://www.pwc.com/gx/en/tax/newsletters/tax-policy-bulletin/assets/pwc-oecd-and-ec-recommendations-on-tax-and-digitalisation-of-economy.pdf

user data, i.e. the transmission of data collected about users and generated from users' activities on digital interfaces. Payment services, information technology and software, digital sales of audio, video and text, and intra-group transactions should in principle not fall within the scope of the proposed directive.

The DST applies to multinational companies with worldwide annual gross revenues exceeding 750 million euros and with annual taxable revenues from providing digital services in the EU of at least 50 million euros. In order to determine the portion of worldwide revenues allocable to the EU, specifically to the respective EU Member States, different allocation keys are being proposed depending on the type of digital services.

| Digital service | Allocation key |
|---|---|
| Advertising | Number of times the advertisement appears |
| Multi-sided interfaces | Number of transactions concluded by a user or number of users that have an account |
| Transmitting user data | Number of local users whose data is being transmitted |

Source: PwC

The DST has been heavily criticised. A few important points of criticism are: (i) there would not be an appropriate measure to avoid double taxation as the DST paid would only be deductible as a cost from the corporate income tax base; (ii) the 3% gross levy does not take into account profit margins generated by the different business models, possibly resulting in after tax losses for low-margin businesses or passing on the tax burden to the ultimate customers; and (iii) being a turnover tax, the DST will most likely not fall within the scope of tax treaties and, hence, the bilateral double tax relief mechanisms as well as the tax treaty dispute resolution remedies will not be available.

### The long-term solution: attribute profits to significant digital presence

The long-term solution includes common rules for the EU Member States to establish a taxable nexus for digital businesses operating across border (resident and non-resident) in cases of non-physical commercial presence ('significant digital presence'), and attribute profits to such significant digital presence.

A company will be considered to have a significant digital presence and, therefore, a digital permanent establishment (PE), in a Member State if one of the following criteria is met: (i) it exceeds a threshold of seven million euros in annual revenues from digital services provided to users located in a Member State; (ii) it has more than 100,000 users of its digital services in a Member State; or (iii) over 3,000 business contracts for the supply of digital services are concluded between the company and users located in a Member State.

Digital services are broadly defined. A digital service is a service that is delivered over the internet or an electronic network and the nature of which renders its supply essentially automated, involving minimal human intervention. The following are examples of services that would qualify as digital services under the proposed directive: the supply and upgrading of digitalised products including software, website/webpage hosting services, and maintenance of digital marketplaces. The mere sale of goods or services facilitated by using the internet or an electronic network is not regarded as a digital service. This means, for instance, that giving access (for remuneration) to a digital marketplace for buying and selling cars would be considered a digital service, but the sale of a car itself via such a website would not. Furthermore, 'traditional' radio and television broadcasting and telecommunication services are in principle not deemed to be digital services.

For purposes of attributing profits to a significant digital presence, the EC acknowledged that more work needs to be done. However, from the proposal it can be clearly inferred that, in the view of the EC, value creation, and thus profit attribution, *“Digital Services Tax is at times unclear and may have implications for situations one would not immediately expect.”*


should also take into account in which Member State a user of a digital service is established and data is collected and processed. This is irrespective of the absence of physical presence and significant people functions in that Member State.

## Potential impact on the TMT industry

### Digital Services Tax: not only a tax for the big technology companies?

The DST has been drafted with the aim to target the social media and advertising business models, which typically involve the following two services: (i) free access to users and the collection, processing and sale of personal data to advertising companies or other businesses (e.g. search engines, social networks) and (ii) the digital platform model, granting access to a marketplace. The latter also comprises two services: the platform offers access to users in exchange for either a fee on a transaction or subscription, and the users offer services among themselves (e.g. online marketplaces). TMT companies with this specific profile should obviously closely monitor further developments.

Although drafted with a particular target group in mind, the DST is at times unclear and may also have implications for situations one would not immediately expect. An example to consider would be an online news provider in the media sector. Providing news online would not prima facie be a DST transaction. However, to the extent that online advertising space to third parties is also made available through the online platform of the news provider, the latter could be faced with DST, if the revenue from advertising meets the 50 million euros threshold. Notably, DST is applicable even if the supplier of the advertising services does not own the digital interface on which the advertisement appears. Furthermore, the broadness of the transmission of data category means that the DST should also be closely followed by all companies that collect user data through digital interfaces, such as software, websites, and (mobile) applications, with the intention to sell such data to third parties.

### Significant digital presence: impacting the entire TMT industry?

The existence of a digital PE can be established if a very broad range of digital services is provided. For instance, while online publishers and information technology and software companies in principle should not fall within the domain of the DST, they could be considered as having a significant digital presence in an EU Member State, if they meet one of the three thresholds outlined in the long-term solution. The fact that these thresholds are relatively low and separately applicable (i.e. non-cumulative) further enlarges the scope of application of the proposed directive.

> ***"…the EC's long-term proposal could have significant implications on the TMT industry."***

This means that the EC's long-term proposal could have significant implications on the TMT industry. Apart from the technology sector, the definition of digital services captures all 'non-traditional' business models of the media and telecom sectors. For instance, the definition of digital services according to the proposed directive also includes the following: the supply of digitalised content of books and other electronic publications, the subscription to online newspapers and journals, accessing or downloading of music, films and games. While telecommunication services are explicitly carved out, telecom companies providing internet service packages that allow, next to internet access, access to other webpages providing news, weather or travel reports etc., could also fall within the scope of the proposed directive for these services.

While the reach of the proposed directive may be significant, especially for the TMT industry, it remains to be seen how profits should be attributable to a digital PE once its existence has been identified and, thus, what the real impact would be for the tax position of TMT companies.

### Conclusion

The developments around the taxation of the digitalised economy potentially have a huge impact on the tax position of companies within the TMT industry. Although political decision-making is still at an early stage, the EC proposals do provide an indication on what companies can expect within the EU, but also as unilateral measures. TMT companies should closely monitor further developments and gear up to take action when measures become more concrete.

# The global E&M industry is growing

## Even amid significant disruption

By Ennèl van Eeden

The entertainment and media industry worldwide will continue to grow at a pace close to its historic rates – even in the midst of the large-scale convergence that is significantly disrupting the industry. Digital segments are spearheading growth, but a closer look reveals a dizzying array of different trends at the segment and country levels. An accumulation of near-infinite micro stories make up the story of the global industry.

Our Global Entertainment & Media Outlook 2018–2022 predicts total spending in the global entertainment and media industry to grow by 4.4% per year over the next five years. This is in line with historic growth. Considering that this industry has seen endless disruption for the better part of the past 15 years, the fact that the industry is able to grow demonstrates its ability to transform itself amidst the ongoing convergence. The historic boundaries between Technology, Telecommunications and Entertainment & Media are dissolving, and equally so are the silos within E&M. The battle for sports broadcast rights illustrates this trend. TV networks now compete with companies that offer video streaming, and telco's and social media platforms are also competing for these rights. On Thursdays, for example, Amazon streams NFL American football games; 25 Major League baseball games are broadcast exclusively on Facebook; and the Melbourne Cup (Australia's most prestigious horse race) was live on Twitter this year.

### Digitally-driven services will increase the most

In 2018 the global industry will experience a historic tipping point: digital revenue will exceed non-digital for the first time. The greatest relative growth will be in virtual reality (up 40%) and OTT videos (up 10%) over the next five years. Underpinning this is the massive uptake in internet connections – and in particular mobile internet connections worldwide. Through 2022 the world will see 2.2 billion new mobile internet connections – half of these coming from only four markets: US, China, South Korea and Japan. The US continues to be the world's biggest consumer of data and by 2022, 86% of all data consumption in the US will be video streaming.

### Stark differences between segments …

At the other end of the spectrum are newspapers and magazines, whose revenues will continue to decline over the next five years. Newspaper publishing will show the steepest decline in years, but there are still markets where this segment is growing – at 4.4% per year in India for example.

Print segments in general are suffering, but spending on consumer books will grow at a modest 1.5% per year. This is driven by growth of the middle-class and increased literacy in developing markets. Movies and TV shows are turning books into best-sellers, not the other way around as in the past – think about Stephen King's *It* and Margaret Atwood's *The Handmaid's Tale*.

The world has seen significant disruption by streaming services and the quality of TV shows in particular. At the end of the last season of *Outlander* I sat on my sofa, crying my eyes out … and that makes one pause to think about this. The level of emersion in binging hours and hours into an epic drama series is a challenge in itself to the very core of the movie production industry.

### … and regions

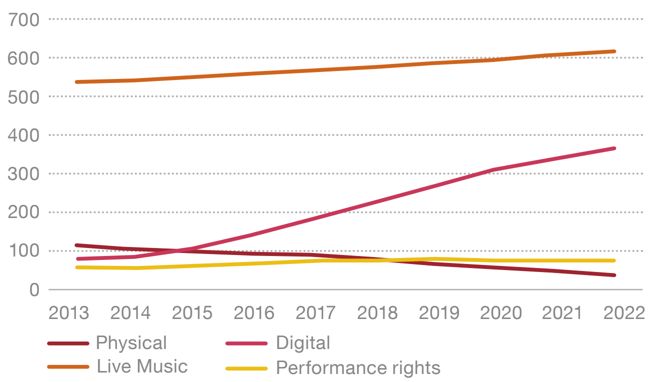
Revenue development varies greatly between the various regions and media. India, Indonesia, Russia and China are the fastest growing markets, while no market in Western Europe or North America will exceed 3% annual growth over the next five years. The distribution of markets is indicative of the increasing difficulty of finding lucrative investment opportunities in the global media market. Conditions in countries as China, India, Russia and Indonesia create unique challenges to investors. This will continue to drive large-scale consolidation in Western markets as companies look for growth and profit maximisation opportunities.

# The Dutch E&M market at a glance

View our in-depth Outlook by segment online

## *Music* *(€ in millions)*

www.pwc.nl/music

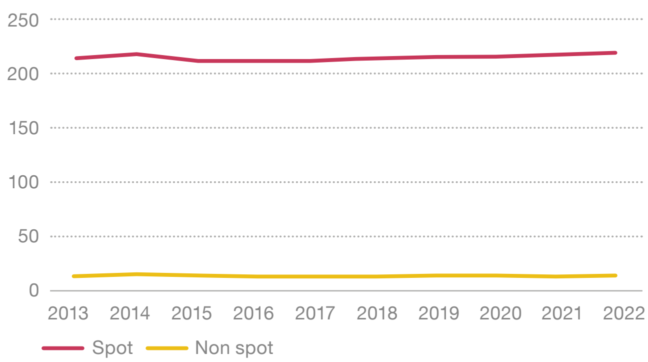



*Although double-digit growth figures are levelling off,* ***streaming is still leading growth*** *in the music industry.*

***Differentiation is the focus point*** *for new entrants to the digital music streaming market.*

## *Radio* *(€ in millions)*

www.pwc.nl/radio

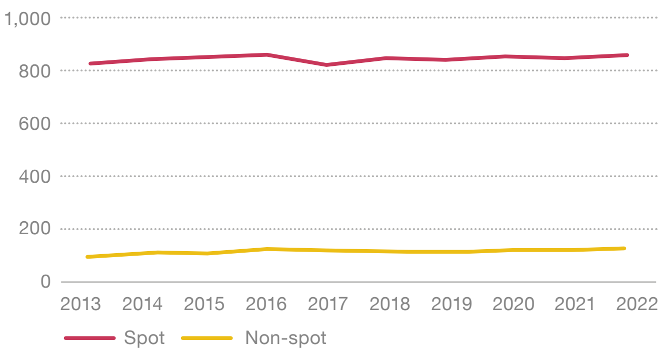



*Radio advertising spend is* ***forecast to remain stable,*** *regardless of the impact of digital media.*

***Spot advertisement remains dominant method*** *for radio advertising.*

## *TV advertising* (€ in millions)

www.pwc.nl/tv-advertising

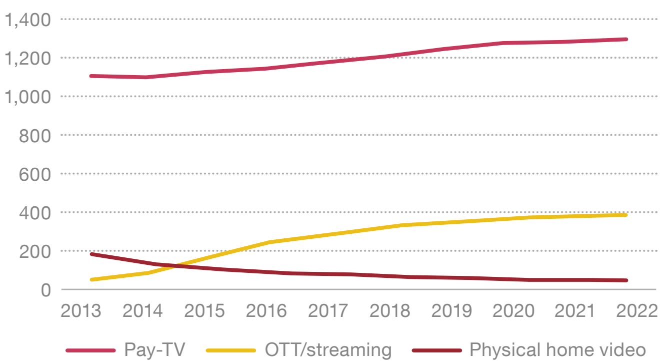



*TV advertising benefits from* ***trustworthiness and usage of AdTech*** *after a difficult 2017.*

*The industry needs to work hard to protect its* ***0.9 billion euro TV advertising revenues.***

## *TV and video consumption* (€ in millions)

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

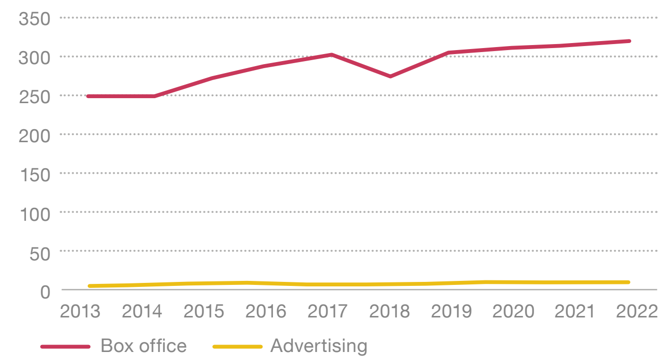



*So far, Dutch consumers have been willing to* ***increase their video expenses*** *by entering into paid OTT subscriptions on top of Pay-TV.*

*The OTT environment will be* ***crowded with the announcement of new entrants.***

## *Cinema* (€ in millions)

www.pwc.nl/cinema

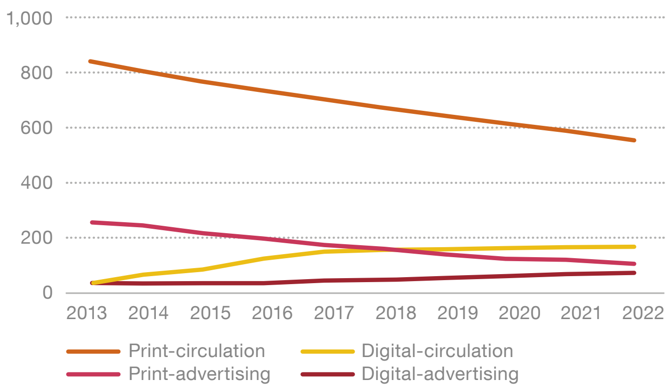



*Leaving aside extreme weather conditions,* ***box office revenues show a positive long-term trend*** *due to blockbusters and investments in cinema capacity and technology.*

*Cinemas invest in* ***online revenue streams*** *and premium visitor experience.*

## ***Newspaper publishing*** *(€ in millions)*

www.pwc.nl/newspapers

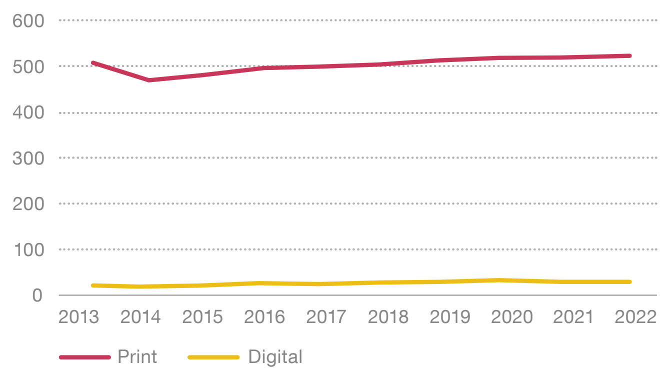



*Publishers position themselves by* ***rolling out new digital strategies*** *and focusing on their digital platforms.*

*Digital needs to deliver* ***double-digit annual growth to overcome the fall*** *in print revenues.*

## ***Consumer books*** *(€ in millions)*

www.pwc.nl/consumer-books

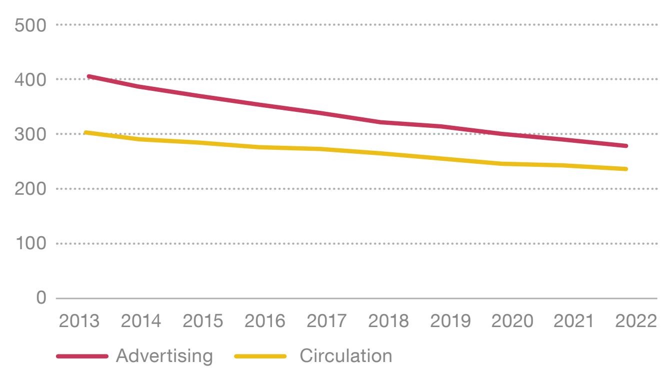



*Contrary to trends in other segments,* ***printed consumer books seem to be able to coexist*** *with digital alternatives.*

*A shortening life span of books in general and* ***decreasing revenues from bestsellers*** *are challenging publishers.*

## ***Consumer magazines*** *(€ in millions)*

www.pwc.nl/consumer-magazines

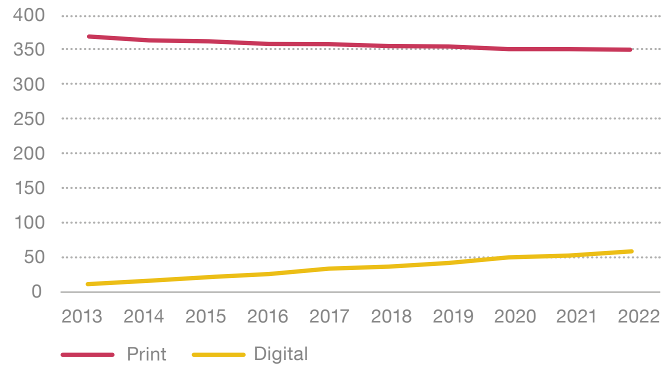



*Only some magazines will have sufficient scale to* ***transform into cross-media brands and be successful*** *in meeting consumer needs in a digital era.*

*A further* ***shake-out of consumer magazines*** *is expected.*

## *Educational books* *(€ in millions)*

www.pwc.nl/educational-books

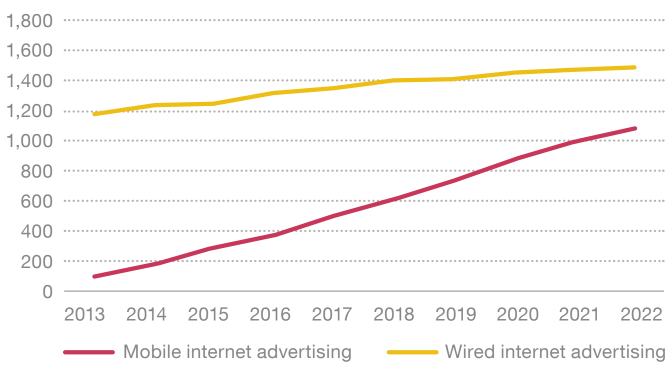



*Legislation on **the usage of student data** further paves the way for digitisation.*

***Excellent user experience** is key to increase the adaptation of EdTech.*

## *Internet advertising* *(€ in millions)*

www.pwc.nl/internet-advertising

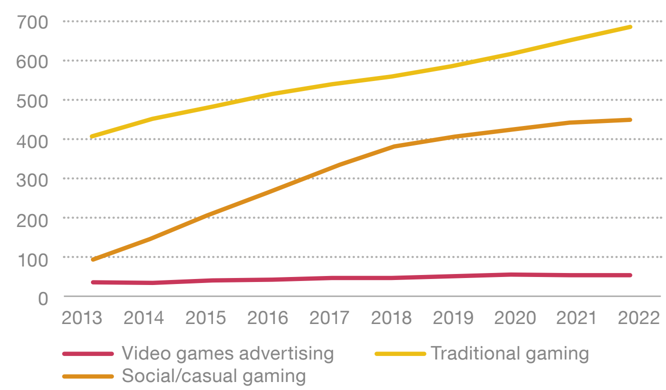



*Internet ad spend is expected to reach **2 billion euros by the end of 2018** with strong growth forecasts, in particular for video.*

***Trust is an important aspect** the industry needs to address in order to remain successful.*

## *Video games* *(€ in millions)*

www.pwc.nl/video-games

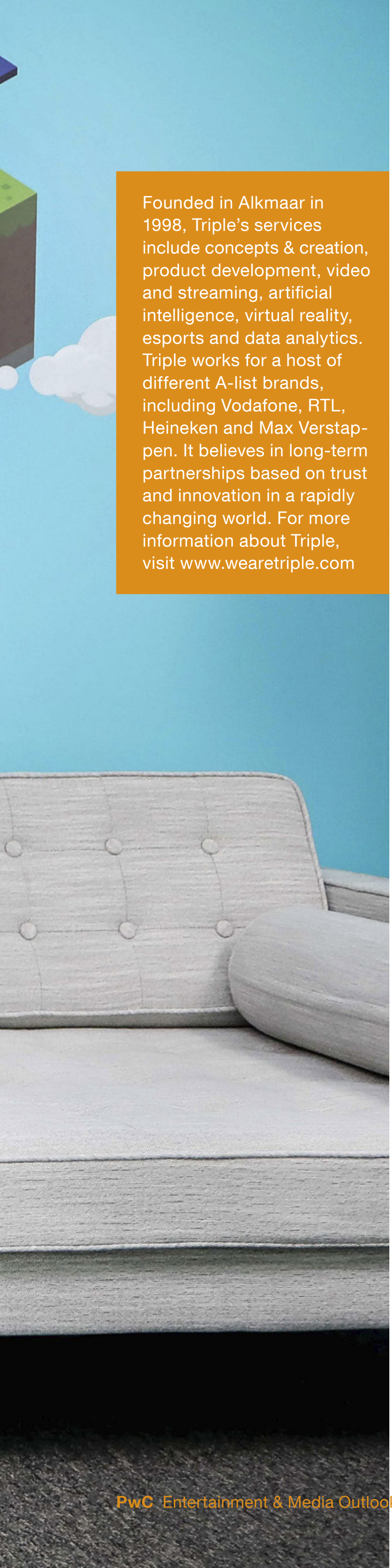



***Double-digit growth** for app-based gaming and microtransactions.*

*Gaming is becoming **a one billion euro-plus segment** in the Dutch market. Its relevance for advertisers is increasing.*


# Professionalising esports to generate opportunities for players, viewers and advertisers

Interview with Triple's business developer esports Corné Dubelaar



Founded in Alkmaar in 1998, Triple's services include concepts & creation, product development, video and streaming, artificial intelligence, virtual reality, esports and data analytics. Triple works for a host of different A-list brands, including Vodafone, RTL, Heineken and Max Verstappen. It believes in long-term partnerships based on trust and innovation in a rapidly changing world. For more information about Triple, visit www.wearetriple.com

***Esports are set to become much more professional in the years ahead. Initiatives in the Netherlands and elsewhere should make competitive gaming more interesting for players, viewers and advertisers. Corné Dubelaar, esports business developer at the digital firm Triple in Alkmaar, looks ahead.***

"In another year or two, the market for esports will be mature enough for good ideas to start generating decent money," says Dubelaar. "Right now, it's really about conquering a position in the market. Triple's owners, who are all passionate gamers, believe in the future of esports. They hired me, a former professional gamer, to set up the esports branch of the company. They said 'You find out what the market's like, decide what's in it for us, and roll it out'."

## Team Gullit

The first tangible result of Dubelaar's quest is Team Gullit, the first-ever independent academy based on EA Sport's FIFA game. The academy gives young esports players the opportunity to train under professional guidance. "Ruud Gullit stopped by our office one time when I also had a trainee visiting," Dubelaar explains. "He was a thirteen-year-old and a big fan of the FIFA game. We asked him whether he recognised Ruud. "Yes, that's Ruud Gullit," he replied. He then proceeded to list all of Ruud's statistics in the game. He was too young to have seen Ruud play football for real, but because of FIFA he knew everything about him. It struck me that this was an opportunity. Ruud's fame may be waning among younger target groups, but in FIFA he's still wildly popular, so we came up with the idea of building an esports team around him. There are lots of talented young kids around who aren't yet able to join a professional esports team, and we believe that Team Gullit can help them bridge the gap between their bedrooms and a professional team. Youngsters are certainly interested in joining a professional esports team; we had 4,000 responses within 24 hours and applications are still trickling in every day. It's true that we have to reject 95% of them, but we're tracking the 5% who remain for our Team Gullit shortlist."

## Lasting esports career

Esports is a highly competitive and demanding environment. Getting to the top requires enormous dedication,

which means it can be challenging to combine with schoolwork or a job. “From the outset, we’ve made a point of communicating with parents to ensure that our esports players are well balanced both mentally and physically,” says Dubelaar. “Besides spending time gaming, we encourage them to play (physical) sports themselves and to keep up with their schoolwork.” The future will show whether a generation of players can build lasting careers in esports; worldwide, only a few have managed it so far. The most well known example is probably Daniel ‘Artosis’ Stemkoski, who became a commentator after a successful career as a player. Dubelaar’s colleague, Maarten Sonneveld, has shown that a lasting career is possible in the Netherlands. “Maarten started out as a trainee in Triple’s marketing department, but we soon saw that he was a whizz at FIFA,” says Dubelaar. “He turned his skill into a job and has advanced from player to Team Gullit’s trainer/coach. I predict that genuine training programmes or alliances with top sports schools will make esports more professional. In five or ten years, we’d like people who want to be the best in esports to think of Team Gullit straight away. They should see us as the esports equivalent of the Ajax youth development scheme.”


*“The Dutch esports market is still a campground: the grass is neatly mown but the tents haven’t been set up yet. Opportunities abound.”*

## Bringing players, viewers and advertisers together

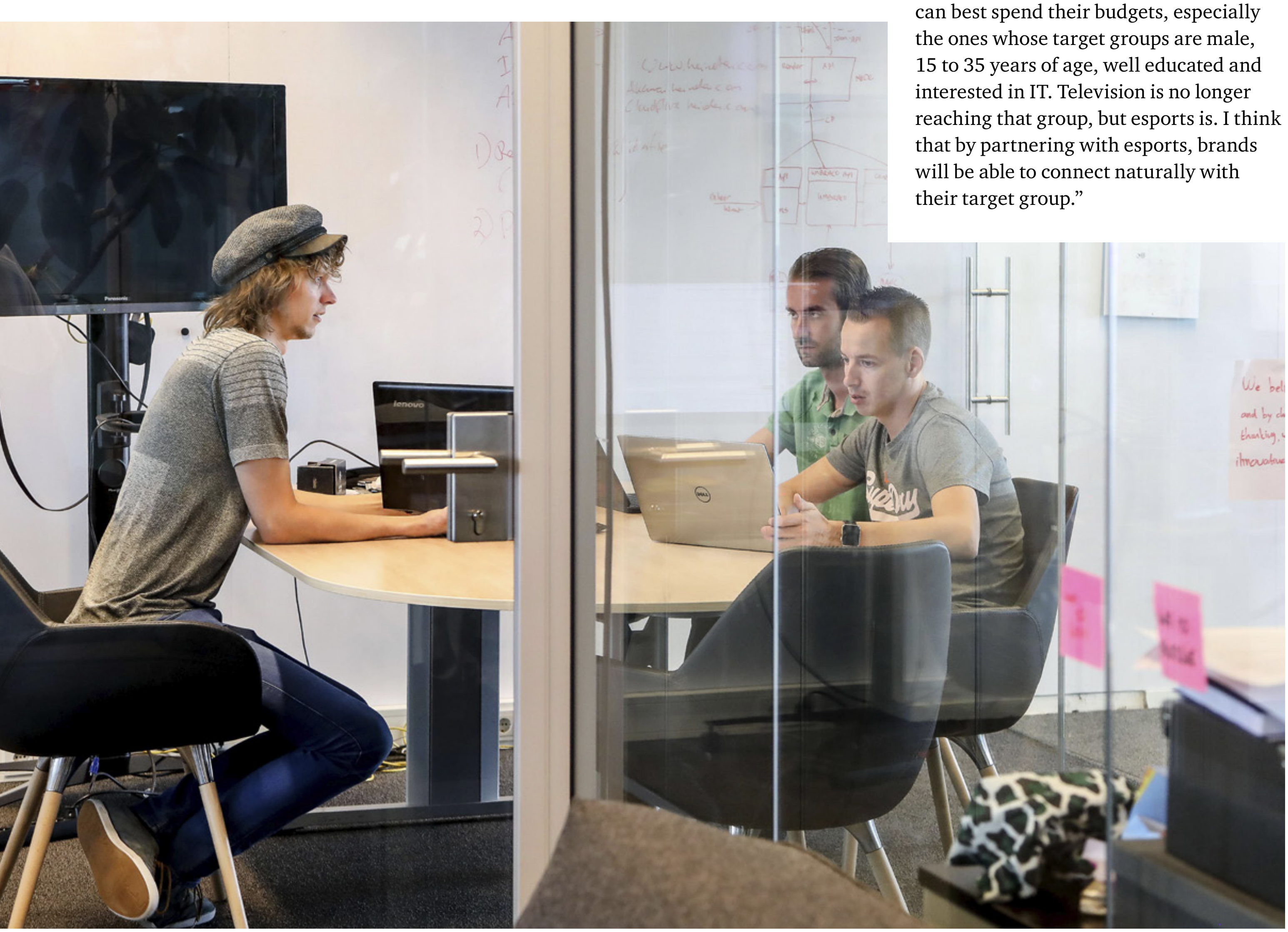
Team Gullit is Triple’s first attempt to crack the esports market. There will soon be other teams, not necessarily related to FIFA or the Netherlands. “The Team Gullit concept can be applied to other games as well,” says Dubelaar. “We can also roll out more tools designed to improve esports players’ skills. Another initiative we’re working on is an esports news platform. There’s a lot of esports related information available all over the place, but we’re concentrating it, enriching it and building a backbone that brings tournament organisers, players, viewers and advertisers together. The demand is there, but the Dutch esports market is like a campground: the grass is neatly mown but the tents haven’t been set up yet. Opportunities abound but only a few parties are actively exploiting them. I think Dutch level-headedness plays a role. American companies are much more willing to take a chance on an

*“Our target group hardly watches TV. They follow esports on Twitch. Why make a programme for a medium that young people don’t even watch?”*

esports initiative. I talk to a lot of Dutch organisations that would really like to move into the esports market, but then they ask me for a zero-risk business plan that guarantees profitability from day one. That’s just not going to happen. You have to invest first.”

### Shifting marketing budgets

Looking ahead, Dubelaar predicts that the most important change over the next few years will be a shift in marketing budgets. “Traditional media, such as television, radio, newspapers and magazines, are all losing ground to online media. That’s causing a lot of brands to ask where they can best spend their budgets, especially the ones whose target groups are male, 15 to 35 years of age, well educated and interested in IT. Television is no longer reaching that group, but esports is. I think that by partnering with esports, brands will be able to connect naturally with their target group.”



## Twitch, Twitter and Instagram trump TV

In other countries, especially South Korea, esports events are not only streamed online but also broadcast live on television. Their markets are big enough and mature enough to support this. Dubelaar thinks that will eventually happen in the Netherlands as well, but he questions whether television will still exist in its present form by then. “Esports is growing steadily in popularity here, so there’s certainly some interest in making linear TV esports programs. Still, we have to think hard about whether it’s actually such a good idea. After all, our target group hardly watches TV – instead, they follow esports on Twitch (an online streaming service for computer games, ed.). So why make a program for a medium that young people don’t even watch? I understand the reasoning: a television programme can generate advert deals, but you can close deals on other channels too. I’m sure we’ll be seeing a shift here as well, especially because the decision-makers are getting younger. Right now, a lack of awareness still plays a role. For example, many of the current decision-makers have never even heard of Twitch. I think that’s pretty significant. Besides Twitch, Twitter and Instagram are important social media outlets among esports players. They follow one

another on Twitter, for example, and use Instagram for behind-the-scenes and casual photographs."

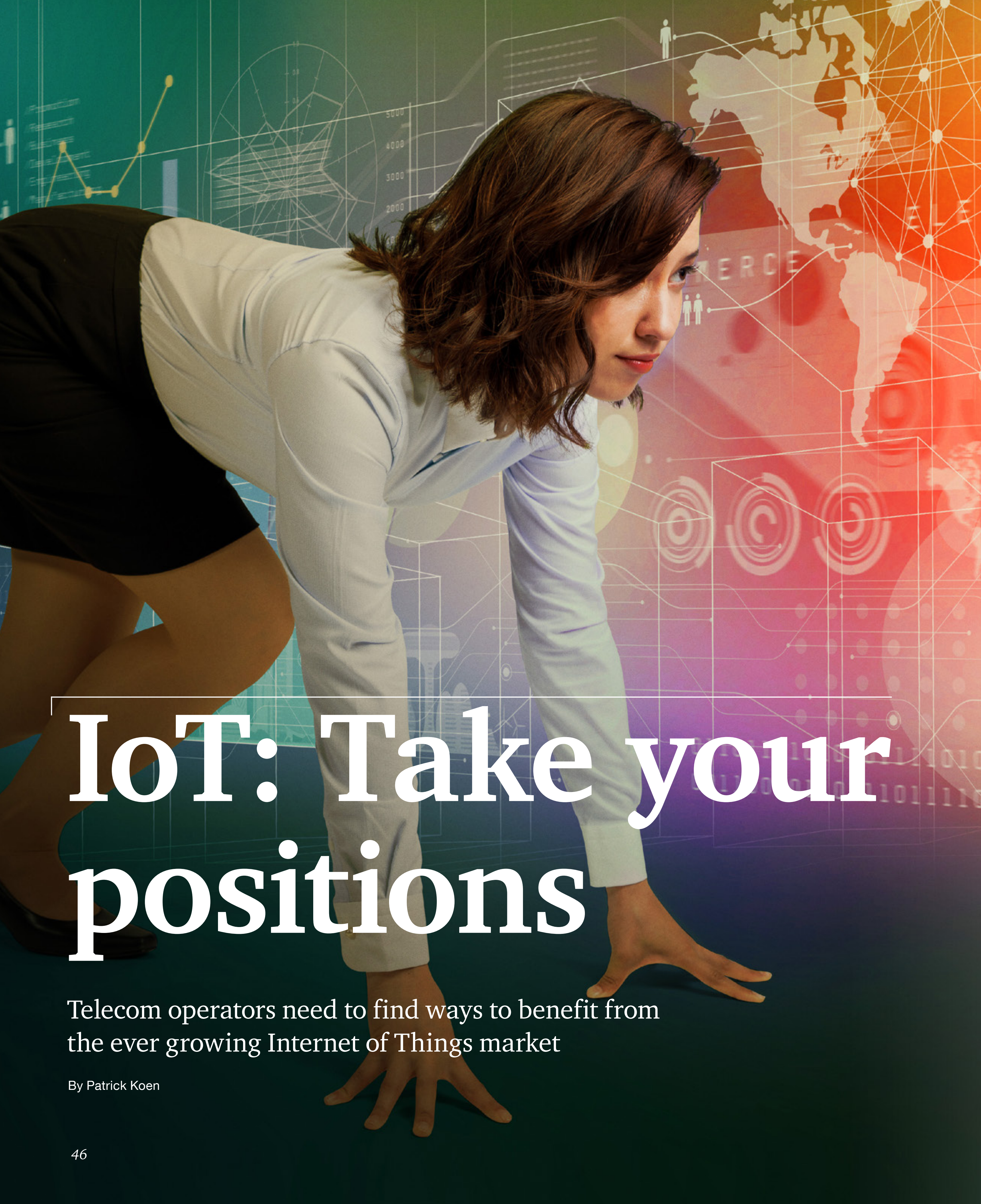
## The esports experience, offline

The online esports experience has also led to a number of popular offline trends. "Here in Alkmaar, for example, esports players get together on Saturday mornings to play Fortnite and other games, and then they play football afterwards," says Dubelaar. "It's like a sports club for them, a place to go. The gaming arena in Alphen aan den Rijn is another interesting initiative. It's a physical space equipped with PCs and PlayStation consoles where people can drop in any time to play with friends. I'm sure we'll be seeing more of these in a few years' time."

## Digital world influences real world

Dubelaar's final prediction concerns the influence of the digital world on the real world. "Football players are already selling their image rights to EA Sports in exchange for cash," says Dubelaar. "It wouldn't surprise me if they started making more demands about protecting their identities in the game, for example to boost their statistics and get selected more often so that their marketing value improves. That is how FIFA can influence football players, clubs and potential transfers in the real world. Football agents and club decision-makers aren't aware of this yet, but that's where we're headed. We're already working with a former football agent to set up our own agency; we'll contribute our knowledge of esports and FIFA, and he'll contribute everything he knows about clubs, contracts, talent development and negotiations. Together, we can launch a business in no time that has all the necessary expertise."

*"Youngsters are certainly interested in joining a professional esports team; we had 4,000 responses in 24 hours."*



# IoT: Take your positions

Telecom operators need to find ways to benefit from the ever growing Internet of Things market

By Patrick Koen

***Telecom operators find themselves in a dynamic environment nowadays. An environment that is characterised by rapidly changing customer demands, fast development of new technologies, and new competitors coming and going. Also, the role of operators in the value chain is changing from telco silos to cross-sectoral enablers of data-driven services. This new environment requires a new and transformational way of innovation, where flexibility, agility, quick development, and testing and adaptation via prototyping are key elements. Cross-department and customer-centric innovation is essential. Especially in the ever growing IoT market, where operators are looking for a 'way to play'.***

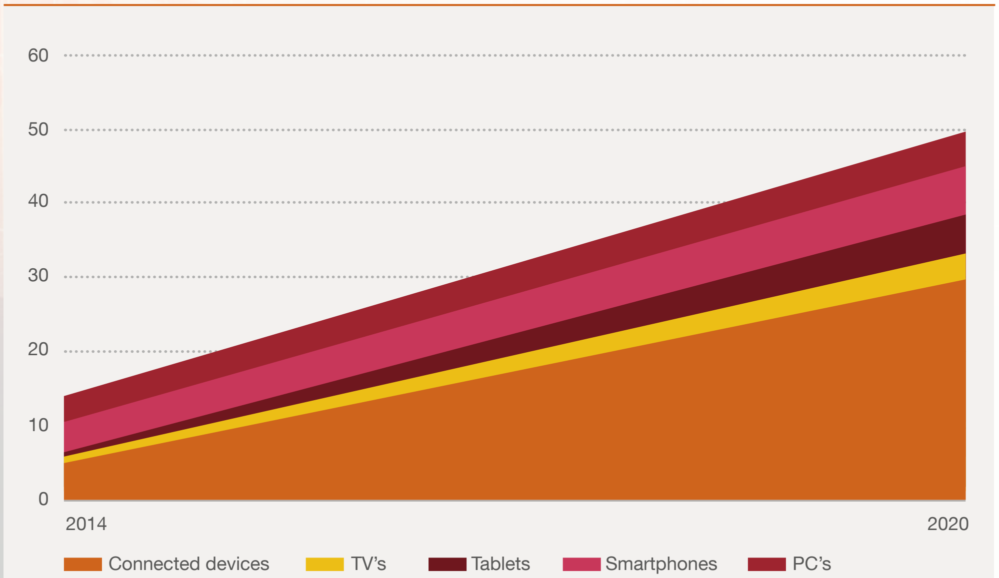
## The Internet of Things market

Today, we see connected devices everywhere, ranging from phones and cars to home appliances, electronics, sensors and so on. The number of connected devices keeps on growing. The interconnection of these 'smart objects' to create one solution integrated with the internet, is what we call the Internet of Things (IoT). The aim is to make these devices interact in a goal-oriented manner with the environment. Next to IoT, we have technologies that enable automated communication between devices to exchange information and perform actions without human assistance. This is what we call machine-to-machine (M2M) communication.

Both trends drive the number of connected devices significantly and pose challenges, as well as opportunities for telecom operators.

Market forecasts vary in scope and definition, leading to vastly different estimates for how the IoT will grow. However, all forecasts agree that the IoT market is growing strongly. Typical delimitations of the market include the fact that devices should be uniquely identifiable and enable wired or wireless communication to exchange information without the manual assistance of humans. Divergent market estimates are caused by the inclusion of devices with no connection

**Global evolution of number of connected devices (in billion)**




Source: PwC

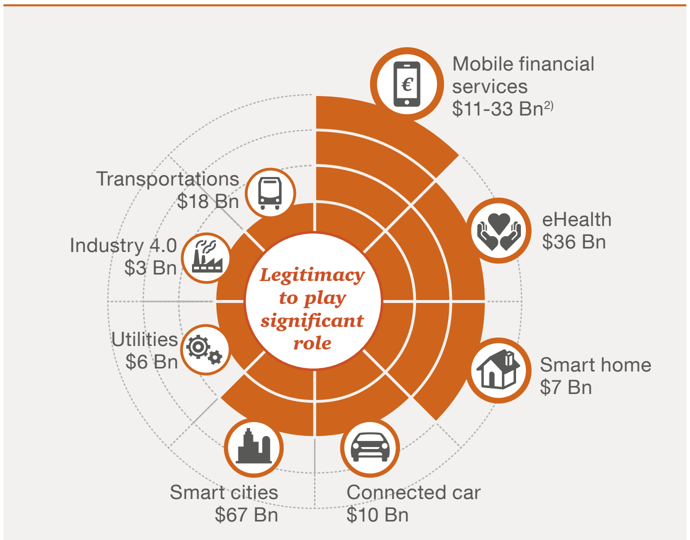
to a public network (cellular, satellite, etc.), fixed network connections, and human interface devices such as smartphones, GPS devices, etc.

### Addressable market for operators

IoT is expected to lead to a large global digital B2B market. Global estimated IoT industries are expected to be the largest in the area of Smart Cities. Additionally, mobile financial services and eHealth also seem promising. The estimated addressable part of the market for operators depends on their ability to play a significant value-adding role in specific industries. Telco's are more likely to play a significant role in mobile financial services, eHealth and smart homes, and to a lesser extent in connected cars, smart cities, utilities and others. This is based on the traditional operator play in connectivity.

> ***"...operators need to decide on their position in the IoT value chain and develop their 'way-to-play' in the IoT market."***

**Market size Telco's in USD[1)]**




1) Market size will highly depend on different political scenarios and what roles telcos can win in the bidding processes (general contractor or only connectivity provider).
2) 2019 figures based on 1% - 3% commission of Consumer 2 Business, Personal 2 personal payments and NFC total transaction values.
Sources: IDC, Ovum, Technavio, MarketsAndMarkets, GSMA, Grand View Research, Navigant Research, Mind Commerce, PwC Strategy& analysis.

Large investments to date into the IoT space are mainly done by OEM manufacturers, ICT players and governments, and keep increasing while several ecosystems are taking shape, such as smart cities etc.

To be successful in the IoT market, operators must carefully manage a number of factors for IoT-based products and/or services providers in the future. Ease of implementation, analytics and interoperability will be key factors to drive consumer adoption in homes, businesses and industry, whereas the careful management of expected data and energy demands, compliance standards for data privacy, and technical safeguards to protect internet infrastructure, will be crucial on the infrastructure side.

Given these trends along the IoT value chain, we believe that operators need to decide on their position in the IoT value chain and develop their 'way-to-play' in the IoT market.

### Way to play

Operators need to answer certain key questions for themselves to figure out their 'way to play' in the IoT market. These include questions like: Which value chain elements to target? Who do I compete with? What are my differentiating capabilities? Do I need a partnering strategy? What are the market size, attractiveness and value pools? To what extent does IoT go beyond (cellular) connectivity? What are the technical implications?

And the increase of IoT across all these industries enables businesses to generate more consumer data and connections than ever. Consequently businesses get to know us better and better. Both as an individual and on an aggregated scale. This can have a large impact on the advertising industry. For example, out-of-home advertising can increasingly be linked to real-time circumstances, also in our own homes, so advertisers can promote their products and services based on our behaviour. That means a key strategic factor to determine a 'way to play' for operators should be the question of wich party in the value chain should own control and have access to this data.
Without trying to provide answers to these questions right here, we see several potential models for operators to play in the IoT market. Operators need to decide where and how to do business. The classic positioning for operators is the one of connectivity provider.

There are four potential models as a digital enabler or even service provider, moving operators more and more away from the classical core focus on connectivity:

**1**

### B2B/B2C Platform Provider

A 'digital enabler' model where operators build adjacent platforms that enable digital services and content distribution by partnering with ICT and OTT players.

**2**

### Ecosystem Driver

A 'digital enabler' model where operators build platforms that enable digital services and content distribution by partnering with ICT and OTT players and work with ecosystem players to organise digital services.

**3**

### Point Solutions Provider

A 'service provider' model focussed on building new digital services in a vertical area, e.g. smart IoT applications, digital content and advertising, media and content, Mobile Financial Services and applications.

**4**

### E2E Experience Provider

A 'service provider' model developing a whole suite of consumer services (or B2B services) that are operator-branded and controlled across verticals and completely interconnected. This provides additional opportunities in data analytics if insights in data can be leveraged across verticals.

## Approach and required capabilities

Moving up in the value chain from a connectivity provider to a service provider will increase the need to build digital innovation capabilities. The point solution and E2E plays require deeper innovation capabilities and understanding of customer trends and needs. The critical success factor is to determine the market opportunity, as well as which commercial model and which required capabilities are needed to be successful.

### B2B/B2C Platform Provider

B2B/B2C Platform Providers start with establishing a platform to leverage digital third-party services for B2B or B2C services, while enabling plug and play operations through APIs. The accompanying commercial model is a connectivity based revenue model. To come to such a platform, the provider should combine traditional telco capabilities with software capabilities.

### Ecosystem Driver

The Ecosystem Driver goes a step further. This platform also starts with establishing a platform to leverage digital third-party services for B2Bor B2C services, while enabling plug and play operations through APIs. Yet, unlike the B2B/B2C Platform Provider, the Ecosystem Driver also includes the orchestration of third-party play and adds partner generated revenue share to the connectivity based revenue model. The benefits of this commercial model are churn reduction and an increase in the subscriber base. Apart from B2B/B2C Platform Provider capabilities, the required capabilities include partner management capabilities and ecosystem marketing capabilities.

### Point Solutions Provider

Although Point Solutions are built on an ecosystem enabler play, they are also betting on self-developed solutions (in B2B and/or B2C) and can also be a digital vertical B2B play. The commercial model used in Point Solutions Provider is the same as in the Ecosystem Driver, but additionally includes direct revenue from Point Solutions Provider, which increases customer attractiveness as well. Besides the required capabilities of ecosystem enablers, Point Solutions Provider also require innovation capabilities with regard to service(software) development.

### E2E Experience Provider

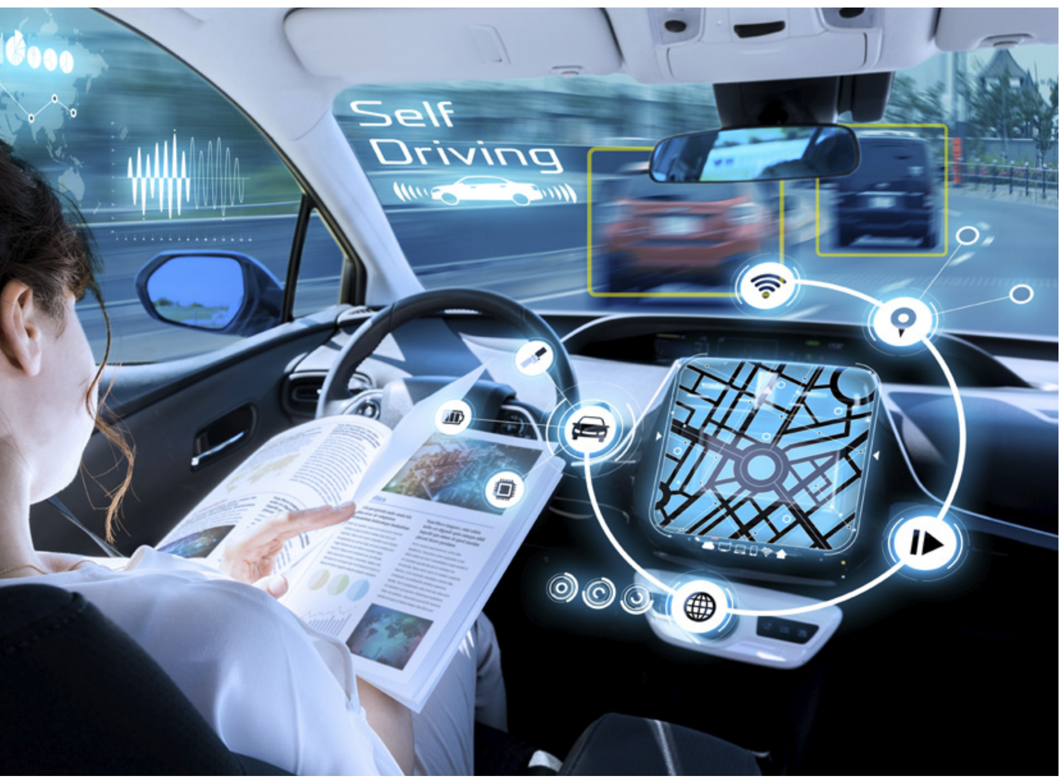
The approach of E2E Experience Provider is the same as Point Solutions Provider, but additionally focuses on becoming a preferred partner to manage the digital life of a consumer. A corresponding B2B play would be to play in more industry verticals. In addition to the commercial model of Point Solutions Providers, the commercial model of E2E Experience Provider includes direct revenue from all digital services offered, which also increases customer attractiveness. The specific required capabilities of Point Solutions Providers comprise a deep understanding of customer trends and a full mastership of digital innovation.

> ***"...operators need to define a clear strategy on 'where and how to play' if they want to benefit from the ever growing IoT market."***

### Call to action

The 'right to win' in each vertical market will depend on the competitive dynamics in these markets. But also on the capabilities operators will be able to build in order to differentiate with clear value propositions in line with their ambition in markets and geography, as well as their position in the value chain. They need to evaluate their current partnerships for strategic fit and come to a conclusion on how to develop the necessary capabilities: optimise, build, buy, partner, or do nothing?

The current IoT/M2M capabilities and market dynamics of verticals need to be scanned to identify fields of play and the required capability system differs for each 'way to play'. Initial hypotheses for IoT growth stories are generated and operators must decide whether to own or aggregate specific solutions and prioritise investments in select industries. There are a number of potential IoT pathways for operators: focus on selected verticals and partner with cloud players to offer connected services or focus on select embedded devices. Alternatively, they can focus on connectivity and offer a cross-vertical broad range of world class IoT connectivity. Or, they can move in the direction of becoming a leading provider of (co-developed) IoT solutions of full stack offering in primary verticals.




These are pathways that operators need to discover themselves and they need to define a clear strategy on 'where and how to play' if they want benefit from the ever growing IoT market.

# Winning the war on talent by focusing on your purpose

## In search of a human connection

By Vanessa van de Wiel

For most of us, life without a smartphone is unthinkable. We share updates, exchange messages, and are more connected than ever. But are we really connecting on a human level? Around the world, I see a movement towards a more human, heartfelt connection and a more purposeful existence. For telcos and media companies, enabling employees to feel more connected by a shared sense of purpose, could be a differentiator in winning the war on talent.

I have recently been on a world trip with my family. Although I shared beautiful photos via social media, we only shared the 'real stories' during face-to-face conversations once we got home. Real stories about how we were nearly arrested for accidentally trying to cross the US border from Canada. Or about that time when we ended up at the emergency department with our two-year old son. For me, this is exemplary of how technology enables connectivity, while personal, heartfelt connections remain irreplaceable.

### A more purposeful existence for customers, businesses and employees

The growing need for a more human connection goes hand in hand with the need for a more purposeful existence. Customers are choosing 'good' companies to do business with. Employees long for a culture of meaning, a strong sense of purpose and fulfilment in their work. Businesses that display a strong sense of purpose, and act accordingly, are outperforming their peers on the share market, on customer advocacy and (key) employee retention. Being able to attract and retain people with the right (STEM) skills, as well as the ability to make meaningful connections, is a challenge within the telco and media (TMT) industry with many players targeting the same talent pool.

### How can TMT companies differentiate themselves in order to win?

I think TMT companies are uniquely positioned to create an Employee Value Proposition that is about being fulfilled and making a difference in society. This could be a differentiator in winning the war on talent. TMT companies have the ability to help people connect in all aspects of their lives. Through the products and services they provide, but also through their role and contribution to big societal challenges such as fake news, filter bubbles, (urban) movement management or smart cities. These businesses have the connection, the assets (e.g. content and data) and capabilities to make a difference, for example by using real-time data feeds to support management of traffic flows or accelerating Internet of Things to support smart cities.

### How to become a more purpose-led organisation?

At PwC, we are on our own journey to become more purpose-led, because we believe this is the way to have impact in a changing world. Although there are many ways to breathe life into becoming a more purpose-led organisation, here are some ways to get started:

- Discover the story of your organisation. Why was it incorporated? What makes it unique?
- Co-create or redefine a purpose that reflects the story of your organisation and that resonates with people.
- Reflect the purpose in recruitment, performance evaluation and promotion.
- Reflect the purpose in how work is done, as well as which work is prioritised.
- Obtain regular feedback from internal and external stakeholders to further embed the purpose.

# Creating a competitive advantage with GDPR

GDPR as an opportunity to become more efficient, secure and competitive

By Bram van Tiel

***For companies operating in the telecom, entertainment and media industry, known for its large-scale use of personal data, the awaited new General Data Protection Regulation (GDPR) has been an approaching tsunami of additional regulatory compliance procedures and customer inquiries about their personal privacy. With the prospect of reputational damage, high penalties of up to 4% of an organisation's global annual turnover or 20 million euros (whichever is greater), GDPR compliance is understandably surrounded by a great fear of 'doing it wrong'. As GDPR came into effect on 25 May 2018, Telco and E&M companies should venture beyond compliance and seek ways to use GDPR to their best advantage, possibly to create a competitive advantage with their policy on data privacy. Subsequently, this competitive advantage will turn into a hygiene factor for larger media companies. We strongly believe that 25 May has been a small milestone in a multi-year process in which citizens, politicians and businesses are gradually moving towards a more data-savvy society.***

### Personal data-driven industry

Being a business-to-consumer market by nature, a mutual dependency exists between media companies and their customers/users. Telco and E&M companies therefore heavily rely on, possibly more than companies in other industries, the use of personal data for tailored product offerings and on profiling[1] to target specific (potential) customers for marketing or price differentiation. Telco and E&M companies monetise the online and mobile data they harvest through the development of new products and the sale of ad inventories to advertisers at higher rates. Well-known examples are the movie and series

1) For information on profiling of personal data and the use of profiling under the GDPR we refer to the article: 'Use of personal data' in the Entertainment & Media Outlook for the Netherland 2017-2021 (https://www.pwc.nl/en/publicaties/dutch-entertainment-and-media-outlook-2017-2021.html )

selections Netflix makes for you or seeing 'People who read this article also read...' at the bottom of the page when reading an online newspaper article. Pay TV is also making steps in addressable (targeted) TV advertising. For Telco and E&M companies, the analysis and use of personal data has become an integrated part of their business as it results in a deeper understanding of consumers. Consumers who, for their part, are more loyal and engaged because they get to see personalised content and targeted advertisements.

## GDPR compliance

The new GDPR framework has put pressure on both the revenue model and the technologies used by Telco and E&M companies. As a result, the industry saw the direct effects of the new regulation as some American newspapers, such as the Los Angeles Times and the Chicago Tribune, decided to shut down their European branches after the GDPR effectuation date[2]. Also, the use of third-party data powered by external data brokers became restricted. This affects large advertisers that will have to rely on their own data more, instead of sourcing from a wider range of other data platforms. In addition, GDPR has provided no off-the-shelf solutions for compliance, making it clear that it is up to Telco and E&M companies themselves to think about how to safeguard data privacy, while maintaining their current revenue models.

## Technological roadmap

Although a significant challenge, an important aspect about the new European regulation is that all companies are facing it together, making it also an opportunity to become more efficient, secure and possibly gain an advantage within the highly competitive E&M market. The basis of this advantage starts with getting and maintaining a firm grip on the status of data privacy that is driven by the right (use of) technology. This is in line with the mandatory GDPR principles of privacy by design and privacy by default, meaning that data protection in data processing procedures is most secure when already integrated in the technology used. The right technology makes privacy frameworks and data continuously visible in a unified manner, while shaping a sound data strategy. Consolidating all aspects of privacy management in a monitoring and decision platform, supporting both privacy officers and customers, is the way to go.

## Put the (privacy of your) customer first!

When having the technology in-house to monitor and control data privacy, the implementation of GDPR could also be the right moment to reassess your current privacy standards, and explore how data privacy could become an inextricable part of your client strategy, as well as part of your data strategy.

When companies can show customers that they properly guard the privacy of personal data, it can help strengthen the relationship with consumers based on mutual trust. After all, before buying products and services, consumers may increasingly want to determine whether a company respects and protects their personal data the way they want it to be. With low switching costs for customers within the media and telecommunication industry, data privacy could present an advantage on competitors.

By means of technology, companies can gain a competitive advantage by providing customers with the insight into why they offer certain products. For instance, OTT and music streaming

2) Companies under strain from GDPR requests – Financial Times, 02-07-2018

providers already hint towards this insight in their selections, by highlighting the set of earlier consumed services on which they base their recommendation. Companies could also offer their customers an integrated dashboard with all the products and services these customers purchased, presenting everything the consumer watched, listened to, played or read. Such a dashboard will make it easier for customers to manage their own data, as stated in GDPR. Although large companies such as Google and Microsoft have started using such privacy dashboards, GDPR can possibly speed up the development of integrating more data into these dashboards.

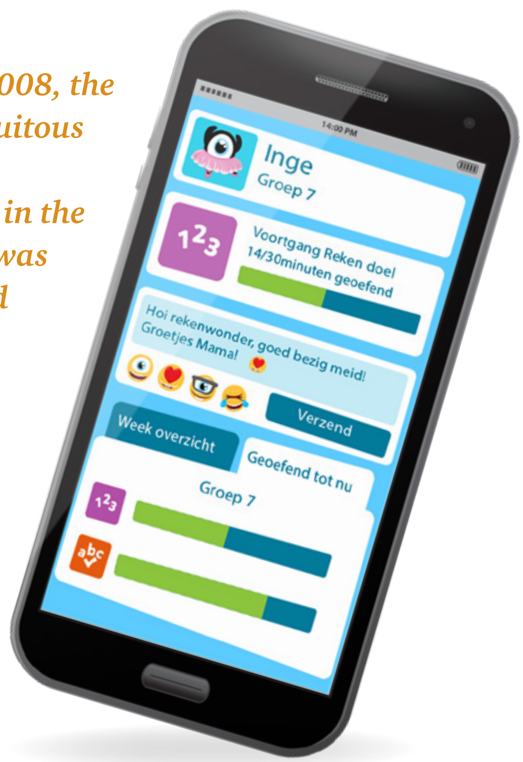
Becoming GDPR-compliant has put data privacy on the agenda of all Telco and E&M companies dealing with EU personal data. For those companies that take on the challenge of successfully integrating data privacy into their client strategy, and have the technological capacity to do so, safeguarding personal data has the potential to become a real USP.

*"GDPR…has put pressure on both the revenue model and the technologies used by Telco and E&M companies."*

# Online learning platform Squla focuses on pupil-parent-teacher triangle

Interview with Serge Bueters, CEO at Squla

*Primary schools hardly made use of available technology in 2008, the year Squla was founded. Laptops and smartphones were ubiquitous in Dutch households but not yet in Dutch schools. Due to this situation, educational publishers had little incentive to invest in the development of digital content. A CD-ROM inserted in a book was as far as it went. Squla jumped into this gap in the market and built a successful and growing online learning platform that focuses on the pupil-parent-teacher triangle. Serge Bueters, Squla's CEO since 2018, discusses the ins and outs of Squla's digital platform, as well as internal and external factors that affect Squla's business.*

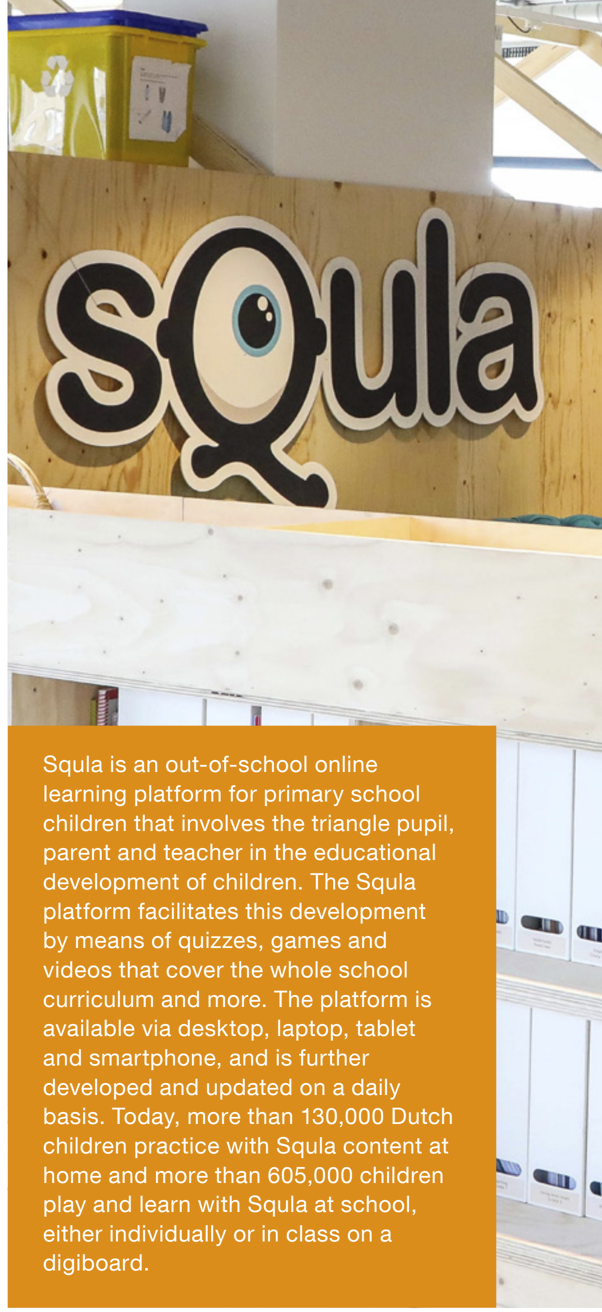


“About four to five years ago, we saw a change towards digitalisation in schools setting in”, says Bueters. “Device penetration in schools was on the rise and schoolchildren started to bring their own tablets and smartphones to school. Although there is room for improvement with regard to hardware and connectivity, partly caused by lack of funding, most teachers approach digitalisation in their classroom in a constructive way. Today, unlike primary schools in most European countries, the vast majority of Dutch primary schools are online. Adoption of digital products by teachers started to increase, also due to the wide adoption of digital blackboards.”

> ***“Children are curious by nature and by offering an engaging product they will enjoy learning.”***

## Engaging and instructive product

“So today, the situation in schools is not the same as it was in the year Squla was founded”, Bueters continues. “Yet, there are still hardly any digital learning materials that are focussing on pupil engagement, as most digital learning materials are based on the principle of a teacher guiding a classroom of pupils through the compulsory curriculum. Children are curious by nature and by offering an engaging product they will enjoy learning. We make a product that is engaging, as well as instructive, by combining curriculum-based material with gamification techniques and attractive user experience design. Squla is very suitable to provide schoolchildren with an individual experience by offering them highly personalised content through an adaptive learning system and a smart recommendation system.”



Squla is an out-of-school online learning platform for primary school children that involves the triangle pupil, parent and teacher in the educational development of children. The Squla platform facilitates this development by means of quizzes, games and videos that cover the whole school curriculum and more. The platform is available via desktop, laptop, tablet and smartphone, and is further developed and updated on a daily basis. Today, more than 130,000 Dutch children practice with Squla content at home and more than 605,000 children play and learn with Squla at school, either individually or in class on a digiboard.

“But of course digital solutions should always be faster and easier than the traditional way of working with pen and paper, otherwise the adoption of a product will be low. People need to benefit from it, as they will not innovate for the sake of innovating. Access should


also be fast and easy. Think of a class full of children who have to log into the same system to get started. Children can easily access Squla and find their way intuitively through its content without help from their parents or teachers."

## Recommendation system

Squla is adapting its recommendation system so that children will become acquainted with the wider spectrum of subjects Squla covers. Bueters: "Some children only practice a specific subject because they are good at it, while ignoring all other subjects. It's our aim to invite them to also try something new. Parents can influence the recommendation engine too, by what we call 'goal setting'. This means they can use their account to, for instance, express the wish for their child to do at least sixty minutes of arithmetic every week. Squla then tries to stimulate the child to practice more maths using gamification elements and rewards. Yet, this never happens behind the child's back, as we want to be transparent to all parties involved. In the future, we also want to give teachers the possibility to influence the recommendation system if they think a pupil is behind or should spend more time on a subject to master it."

## Tailored content and adaptivity

Based on user data, Squla tailors its content to the level of the child and automatically takes the child to a higher level of difficulty when he or she is ready. Bueters: "We constantly improve the algorithms behind this and adapt it to be able to correctly determine the level of mastery of the pupils. The algorithm also includes different degrees of mastery, since for instance answering open questions is harder than answering multiple-choice questions. We also adapted the sequence of questions so that children finish a certain task and then go back to some extra questions on a particular topic before going to the next section/level. Of course, we take into account that pupils also need teachers in order to make progress, since Squla doesn't instruct pupils or replace teachers. But there are of course children who are able to find their way through all levels independently. Learning preferences are another layer in the algorithm. Some children prefer the pressure of multiplay situations while others rather learn on their own."

### Feedback

Regularly, Squla organises user labs where children and their parents test new features with regard to content, creative game elements, and design. Bueters: “Feedback is vital for us and, in addition to generating qualitative user feedback, we actively analyse our user data. Also, we A/B-test many features as well as asking our user base for input. For example, because we have thousands of users every day, it is easy to distribute questionnaires or surveys in the form of a quiz, presented on the platform when logging in. This feedback is vital, because children are the end-users and their engagement is our key performance indicator.”

### Non-curricular content

Squla covers the complete primary school curriculum. But, as a result of feedback from users and demand in society, Squla is also developing content that is not part of the official school curriculum. Bueters: “We offer, for instance, English, computer programming, and 21st-century skills, such as critical thinking and computational thinking. In addition, in Squla we have a section called Checkit! which contains quizzes in which different school subjects come together or in which a variety of specific non-curricular topics are presented so that children can discover new things. We can see from our data that children love this and we hope this stimulates children and will help them to find their passion.”

***“…the pull for the adoption of digital educational tools really came from parents more than from teachers and schools.”***

Publishers are not focussing on the development of teaching methods for subjects that are not (yet) part of the school curriculum, such as English in primary schools. In September, Squla therefore launched new English learning modules, including speech recognition technology, for all primary school levels. Bueters: “Teachers spend the vast majority of their time teaching the compulsory curriculum and often don’t have the time to teach English. Squla wants to support the teachers and offers pupils English content that they can complete independently. With the new English learning module, Squla enters the field of instruction, similar to traditional educational publishers. But this doesn’t make us an educational publisher, as we have a completely different focus and business model.”

### Business model

In the Netherlands, less than a handful of publishers dominate the market of educational publishing materials. Bueters: “To enter this market you need to build a strong salesforce and you will have to enter a very long sales cycle to be able to sell your products to schools. However, the pull for the adoption of digital educational tools really came from parents more than from teachers and schools. This is why our initial business model focuses on a direct link with parents by offering a subscription model, which provides ‘all-you-can-eat’ access to the supplemental learning platform for one or more children. Squla offers practicing materials for pupils supplementary to what teachers teach in class.”

### Social inequality

As Squla is not state-subsidised, their business model is based on subscription fees. Bueters: “For some, this provokes discussion about social inequality, comparable to the discussions about wealthy parents who are able to pay for private tutoring for their child. Yet, I don't think Squla is a good example in this discussion, because we strive to make our product available to everybody. Squla offers teachers the so-called Squla-in-class account free-of-charge during school hours. On top of that, we work together with the Tuition Funding Foundation (Stichting Leergeld, ed.) and the Youth Education Fund (Jeugdeducatiefonds, ed.) to make sure less privileged children also get access to Squla."

## Parent-teacher-pupil interaction

The current interaction, that is also expressed in Squla's business model, is between parent and child and not yet between child and teacher or parent and teacher. Bueters: "Yet, we are constantly brainstorming on ways to make it easier for teachers to interact with parents. If a teacher is able to activate parents in a positive way, this will have a positive effect on a child's school results. Of course, Squla doesn't issue certificates, but we do help children build self-confidence and, therefore, improve their school results. This will also have a positive effect on a pupil's school career after primary school."

*"To improve our platform we don't need personal data, as anonymised data is sufficient."*

"To create a link between teacher and pupil, we developed a teacher dashboard in which a teacher is able to create free individual accounts and see the individual achievements of their pupils whenever they play via their Squla-in-class account. But this dashboard, and its functionalities, is scarcely out of the egg. Future development will include more functionalities to support teachers as well as features to close the loop with the home environment of the child."

## Data and privacy

Squla is aware of the growing tensions around privacy and data protection. Bueters: "The personal data of our users can never end up out on the street, as this will harm the children and therefore our reputation, as well as client confidence. GDPR is a framework that provides us a firm footing. Actually, we were already compliant, even before GDPR came into force. Our primary interest is to let children experience progress through fun learning and to improve our platform we don't need personal data, as anonymised data is sufficient."

## International scalability

Squla's digital learning platform is internationally scalable, but there are some hurdles. Bueters: "Design and technology are fully scalable, but content is not. Even in arithmetic, there are sometimes differences between countries in the way calculations are made or written down. Or look at the way history is written in other countries, with different (politically inspired) angles and an emphasis on different historical events. This means the investment in content for other countries goes beyond translation of that content. The hurdles of international scalability are mostly about cultural differences, differences in educational systems and digitalisation. However, the investment in the development of content for another country is relatively small compared to building brand awareness or building a distribution network. But ultimately, it's children's desire to learn and play that will make the difference."


14:30 PM
FAKE NEWS
FAKE NEWS

# Trust in Dutch media shows a decreasing trend

## Restoring trust in media is an important objective for all stakeholders in the sector

By Mieke Reintjes

***Over the past two years, trust in Dutch media decreased, with the largest drop in social media. To understand how trust in Dutch media is changing, we asked more than 1,000 people across five generations to tell us about their trust in various Dutch media and how they think trust can be improved.***

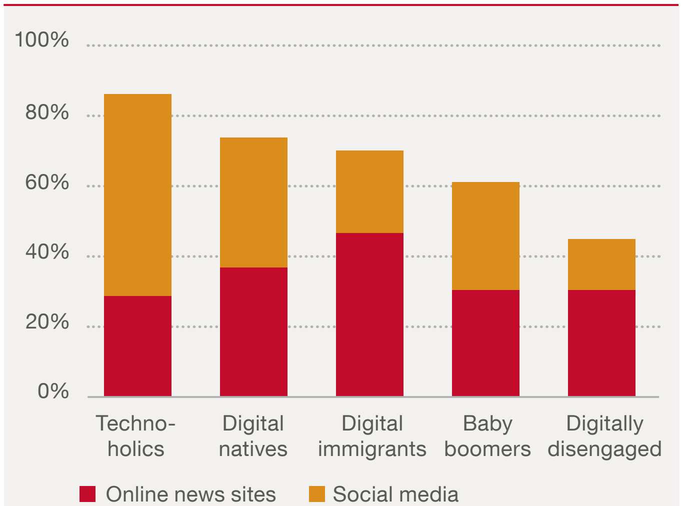
Although trust in Dutch media is still relatively high (as indicated by independent research of Mediamonitor 2018), a fourth of all respondents indicate to have less trust than two years ago. Social media have seen the largest slump, while public broadcasters and print media came out best. Three out of four think social media lack control mechanisms to prevent hate messages and fake news.

### Online news sites and social media are an important source of information especially among the technoholic generation

Trust in social media and online news is important, both are growing information sources among young people but also to a large extent under older generations. Online news sites are the second most important direct media channel, after public TV networks, and the most important indirect source for people who obtain news via social media.

One third of respondents use social media as a news source, making it the fourth largest direct media channel. Social media are the main source of information for younger generations. For example, Technoholics use social media four times as much as the digitally disengaged generation. Among the different social media channels, Facebook is by far (74%) the most popular information/news source. The opposite applies to printed media. Where printed media is still the number two source among the digitally disengaged generation, it is the second least used source for Technoholics.

**Usage of online news sites and social media to find information on politics, economics and society**




Source: PwC

> *“One third of respondents use social media as a news source, making it the fourth largest direct media channel.”*

# The algorithms

Do we know what we don’t know? And how can we be sure that what we know is true? Nowadays, these apparently philosophical questions are top of mind of media consumers. Algorithms play a key role in news distribution and consumption, as they increasingly determine who gets to see which news item and at what moment.

This is both a blessing and a weapon. On the one hand, algorithms, combined with an abundance of consumer data, enable unprecedented personalisation of news. Which news item was consumed and through which media channel? What was the average reading time? Was the article ‘liked’ and how often was the article revisited, shared, and commented on? What was the sentiment of these comments?

In a time in which the modern consumer is said to suffer from ‘information stress’ these algorithms make news more easily consumable and news channels more engaging. And if consumer preferences change over time, the algorithms are intelligent enough to go along with that change.

Yet, there is also a downside. With customisation of our news feeds we create our own selective perception of the world, or – worst – they are created for us without our consent. This phenomenon called ‘filter bubble’ is currently under heavy debate, because of its threats to ‘fair play’ within politics and economics.

**Conventional media can fill the ‘trust gap’ by investing in resources to increase information reliability**

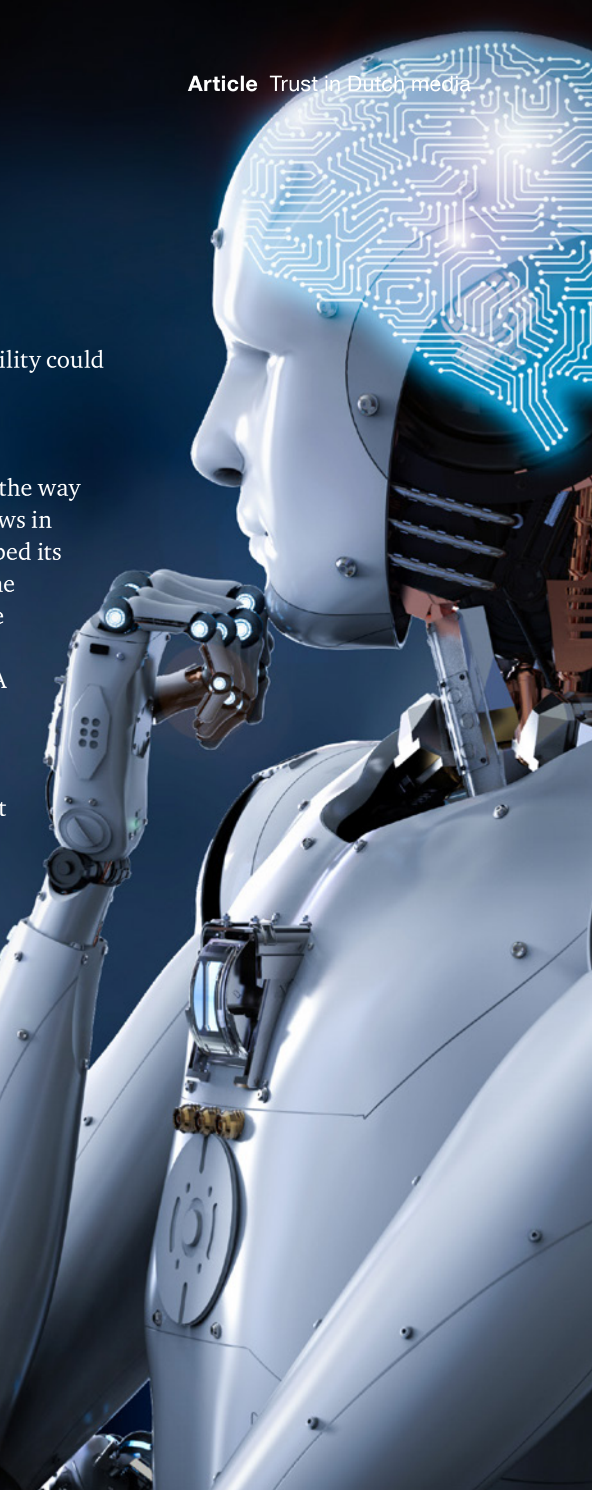
Independent media are viewed as a greater good in large parts of the world. In addition, social media have proven to be crucial during calamities, national disasters and even revolutions, offering citizens the possibility to contribute to news coverage. On the other hand, we see negative side effects. Data leakage scandals, social media influencing political elections, and the use of social bots to influence the public debate are some of the more recent events affecting trust in media.

All media channels have been facing a decrease in trust over the past two years. Social media is facing the largest drop in trust. One out of four think social media are at least reasonably reliable, where 87% qualify Dutch media as at least reasonably reliable. Conventional media (public TV, public radio and paid newspapers) are considered most trustworthy by all generations. This is in striking contrast to commercial TV networks, which faced a 17% decrease in trust. One of the reasons is the dependency of TV networks and other commercial media on advertising income. Half of participants doubt the objectiveness of newspapers, magazines and commercial TV and radio networks because of the involvement of advertisers. To safeguard having access to objective news, the majority (65%) think that public TV and radio networks should remain public (rather than be abolished/privatised).

| | Techno-holics | Digital natives | Digital immigrants | Baby boomers | Digitally disengaged |
|---|---|---|---|---|---|
| Social media lack control mechanisms to prevent hate messages and fake news | 59% | 70% | 76% | 81% | 64% |
| Newspapers, magazines and commercial TV and radio networks often do not report objectively on events because they do not want to scare off advertisers | 41% | 45% | 49% | 52% | 41% |
| Public TV and radio networks should be privatised | 20% | 23% | 20% | 16% | 6% |
| Editorial departments should hire more staff to perform accurate research and be able to verify whether reports are true | 66% | 77% | 73% | 78% | 75% |

# that run our news

By Mona de Boer



## Robo-journalism

But concerns about the quality, transparency and accountability of algorithms are not limited to news distribution and consumption. A recent development called *Robo-journalism* suggests that in the near future we will also develop a keen interest in the algorithms that produce our news. *Robo-journalism* refers to news generated by software based on large datasets. It is very likely that we have already unwittingly experienced its workings. In September 2017, the Washington Post reported that one year after having introduced its artificial intelligence 'reporter', Heliograf, it had produced some 850 articles covering the Rio Olympics and the US election. Other news giants, such as the New York Times, Reuters and BBC, also integrated artificial intelligence into their newsrooms.

## Barack Obama

Human-created fake news was already on our list of concerns. With *Robo-journalism* we can add AI-created fake news to that list. AI has proven to be able to produce output that mimics human-created originals and have the power to convince humans the news output is the real thing. For example, in 2017 the American actor/comedian Jordan Peele created a video featuring an AI-Obama who bore a striking resemblance with the real Obama and who said whatever Peele wanted him to say. The video showed that AI has the ability to automate and optimise fake news and warned the public that such an ability could be catastrophic.

## Fight harmful algorithms

With algorithms increasingly shaping the way we see the world, how can we trust news in the future? Society has not yet developed its ground rules. Current pioneers, like the Dutch digital news kiosk Blendle, have addressed the matter by voluntary public disclosure of their algorithms. A number of social media giants is using 'good cop' algorithms to fight harmful algorithms, for example to track fake news on social media channels and get it offline. Yet, with varying degrees of success. Recent accusations against media giants show that the boundary between tracking fake news and exercising censorship is under public scrutiny.
In the long-term, mandatory independent validation of algorithms could become a standard for certain media types. In the meantime, the sector could consider to proactively arrange a voluntary validation of algorithms to help restore trust.

One reason for the lack of trust in social media is that there is no control mechanism to stop the spread of fake news. Conventional media can fill this gap. Three out of four state that editorial departments should spend more resources on performing accurate research and verifying information. This should be considered in the light of the pressure on consumer spend for journalism, i.e. demanding more verifications is one thing, willingness to pay for such verifications is another.

## 90% hold others responsible for protecting data

Fake news is not the only reason why trust in Dutch media decreased over the past two years. Data misuse scandals also harmed trust. Social media hit the headlines more than once this year. Three out of four know about recent scandals related to social media. Of those, only 10% hold themselves responsible for protecting data from being misused. The rest generally hold social networks (33%) and legislators (26%) accountable.


Despite data scandals, most of us have failed to take extra care. Only half of respondents state that they have taken some type of action. Actions taken include checking and adjusting privacy and cookie settings, searching for information about data protection and deleting or uninstalling apps and programmes. Only 5% state that they have deleted their social media profile.

## Just one in ten want to know what happens to data they pass on

We see considerable variances across generations in the willingness to share data. Half of participants do not mind if their data is passed on as long as it means free access to the website. However, this percentage is significantly higher under the Technoholics and Digitally disengaged generation.

Most of those who do not mind sharing data, believe that passing on data must be subject to certain conditions. Of those, 18% want at least highly sensitive personal data to be protected, 14% are happy for it to be passed on in return for a benefit (e.g. free offers or price/bonus points or personalised information) and 11% want to know exactly where the data goes. The Technoholic generation, in particular, are very relaxed about handling their own data: just 21% in this age group try to keep disclosure of their data to a minimum.

*"We see considerable variance across generations in the willingness to share data."*

| | Techno-holics | Digital natives | Digital immigrants | Baby boomers | Digitally disengaged |
|---|---|---|---|---|---|
| I do not want my data to be shared | 21% | 40% | 42% | 55% | 17% |
| I am willing to pay a user fee if no data is sold | 37% | 44% | 34% | 35% | 6% |
| I am willing to pay a user fee that depends on the level of data that I allow to be sold | 20% | 23% | 23% | 18% | 11% |

| | Techno-holics | Digital natives | Digital immigrants | Baby boomers | Digitally disengaged |
|---|---|---|---|---|---|
| Birth year | After 1995 | 1981-1995 | 1965-1980 | 1945-1964 | Before 1945 |
| Age | Below 23 | 23-37 | 38-53 | 54-73 | Above 73 |

The willingness of people to pay for objective and reliable information varies. About 30% accept that their data is shared with third parties if a social network remains free of charge, another third are willing to pay a user fee for social networks if their data is not shared at all. About 21% of respondents would appreciate a financing model in which they can control how much data is shared. In this model, social media networks would have a financing model in which the user fee is based on the amount of data a user is willing to share – the more data a user is willing to share, the lower the user fee.

One conclusion that can be derived from our study is that restoring trust in media, and news in particular, is an increasingly important objective for all stakeholders in the media sector.


# Colofon

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Note: because we rounded off amounts and percentages throughout this Outlook, tables may not sum to 100%.