

SWISSQUOTE

FINANCE AND TECHNOLOGY UNPACKED

LUXURY

Lalique, from
crystals to hotels

E-COMMERCE

Canada's
Shopify takes
on Amazon

K-BEAUTY

A fresh revival
in the cosmetics
industry

DOSSIER

STREAMING IS COMING

TV series, talk shows,
video games, podcasts...
The entertainment industry
is experiencing a revolution

Peter Dinklage as
Tyrion Lannister, one of
the main characters of the
Game of Thrones series

ISSN 2296-3278



► NETFLIX ► ROKU ► DISNEY ► SIRIUSXM ► APPLE ► AMAZON ► SPOTIFY ►



BEGIN YOUR OWN TRADITION



INTRODUCING THE TWENTY~4 AUTOMATIC

Content is king



By Marc Bürki,
CEO of Swissquote

On the train, in waiting rooms or even in the toilets, people are listening to music on Spotify, watching series on Netflix and gaming on Apple Arcade. As mobile devices have multiplied and networks have moved from 3 to 4 and now 5G, entertainment is being consumed everywhere, all the time. As a result, driven by **streaming** technology, the global entertainment market (video, music, gaming) has never been healthier. In 2021, it is expected to be worth \$439 billion. This explosion of energy-consuming services comes with **ecological challenges**.

Many companies are joining the fray, even stepping far outside their business models to do so. In 2019, Apple launched a **video game** and video-on-demand platform; Google released its cloud gaming service Stadia; and Disney entered the streaming video market with a bang. But this is just the tip of the iceberg: 2020 will be just as plentiful, if not more so, with new film and TV platforms (HBO Max and Peacock) and video game services (Microsoft xCloud and Amazon cloud gaming).

To compete with these US giants, SSR will launch a new streaming platform in 2020. Will it meas-

ure up? **Gilles Marchand**, director general of the Swiss group (interviewed in this edition) believes so. He explains why the quality of Swiss-made TV series will improve. While comparisons never stop between Disney and Netflix or Spotify and Amazon Music, the streaming wars are actually not a battle by industry – video against video or music against music – but rather an all-out war to monopolise the “economics of attention”, to borrow an expression from Herbert Simon, winner of the Nobel Prize in Economics in 1978.

And content is the perfect way to capture people’s attention. “Content is King,” as Bill Gates observed as long ago as 1996! Nearly 25 years later, these words have never been more true. Just look at Netflix’s spending: in 2020, the global streaming leader will spend more than \$17 billion on the production of original content. With such expenses, it will be difficult for all the players on the market to turn a profit. Some experts even believe we will reach “peak content” – oversaturation. “We’re competing with sleep,” said Netflix CEO Reed Hastings in 2017. Attention spans are indeed finite.

Happy reading!

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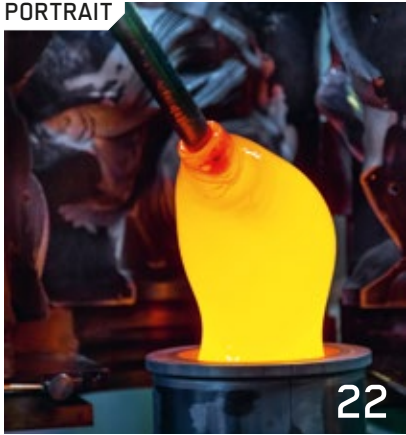
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PORTRAIT



26



DOSSIER



K-BEAUTY

LEADERSHIP



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PUBLISHER
Swissquote
Chemin de la Crétaux 33
1196 Gland – Switzerland
T. +41 44 825 88 88
www.swissquote.com
magazine@swissquote.ch

Manager
Brigitta Cooper

EDITORIAL

Editor-in-chief
Ludovic Chappex

Associate editor
Bertrand Beauté

Design director
Natalie Bindelli and Caroline Fischer
CANA atelier graphique
Route de Jussy 29 – 1226 Thônex
www.ateliercana.ch

Editorial staff
Bertrand Beauté, Ludovic Chappex,
Benjamin Keller, Raphaël Leuba,
Martin Longet, Angélique Mounier-Kuhn,
Grégoire Nicolet, Gaëlle Sinnassamy,
Julie Zaugg

Layout
Natalie Bindelli, Caroline Fischer,
Romain Guerini (CANA atelier graphique)

Cover
HBO

Photography
Olivier Vogelsang, AFP, Keystone,
Getty images, Istockphoto,
Newscom, Reuters

Editing (English version)
Ose Ayewoh, Marco Simon

Translation
Technicis Finance

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hans.otto@i-plus.ch

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SCANS

food

CHINESE FROZEN FOOD IS BOOMING



Despite scandals, Chinese consumers increasingly want more frozen food products. In a country where frozen products only represent 5% of the food market, compared to 60%–70% in developed countries, the margin for growth is significant. Four local brands share two-thirds of all sales: Sanquan, Sinian, Longfeng and Wanchai Ferry. Wanchai Ferry, based in Hong Kong, is part of General Mills, but it is Sanquan, listed on the Shenzhen Stock Exchange, which should be of interest to investors as its products are now exported around the world.

GIS 002216



“Global meat consumption is expected to decrease by 50% and global dairy consumption by 20%”

Emmanuel Faber, CEO of Danone, in an interview with Russian media RBC Pro.



fashion

NIKE ABANDONS AMAZON

Nike’s current strategy, a direct-to-consumer model, has taken a new turn. The shoe company recently announced it would no longer sell its products on Amazon, ending a two-year partnership. This is the company’s latest initiative aiming to eliminate intermediary distributors. The global leader in sport products has invested heavily in applications and online sales platforms. Nike has also created shops dubbed “Houses of Innovation” that combine traditional shopping with an interactive mobile application. The New York and Shanghai shops are already open, and a Paris location is expected to open this year.

NKE AMZN



“There will be tough talks ahead and each side will do what is best for them. It will not be simple.”

Ursula von der Leyen,

the new president of the European Commission, in a speech given at the London School of Economics, recognising that negotiations with London over the conditions of Brexit will be difficult to complete in less than one year.

RANKING

AI CAPACITIES FOR IMAGE RECOGNITION

Percentage of images recognised correctly

GOOGLE CLOUD VISION

81.7%

AWS REKOGNITION (AMAZON)

77.7%

MICROSOFT AZURE

75.8%

IBM WATSON

55.6%

Source: Statista/JDN

MOST SEARCHED WORDS ON GOOGLE IN 2019

(entire world)

1. INDIA VS SOUTH AFRICA
2. CAMERON BOYCE
3. COPA AMERICA
4. BANGLADESH VS INDIA
5. IPHONE 11

Source: Google

CARS SOLD AROUND THE WORLD

(in the first three quarters of 2019)

CHINA

14,963,000

USA

12,709,100

EUROPE

12,115,900

JAPAN

3,441,200

INDIA

2,177,500

Source: Verband der Automobilindustrie



11%

The percentage of household waste recycled each day in Shanghai, the equivalent of 3,000 tonnes of waste (far from the 70% of household waste recycled daily in Germany, according to Süddeutsche Zeitung).

pharmacy

ZUR ROSE: SEEING ORANGE

Medicine on sale alongside M-Budget products? That’s what Zur Rose is hoping for. For the past two years, the wholesaler and online pharmacy has partnered with Migros to test the concept of pharmacies inside the orange giant’s supermarkets. After a successful pilot phase in Bern, Basel and Zurich, Zur Rose hopes to replicate the idea across Switzerland. Before the end of February 2020, a pharmacy will open in the Crissier shopping centre (Vaud canton) and other locations are being considered. Following an IPO in 2017, Zur Rose finalised the acquisition (valued at 197.8 million Swiss francs) of its counterpart Medpex, which is the third-largest online pharmacy in Germany. With this acquisition, the Swiss group continues its expansion in Germany.

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free trade

NORTH AMERICAN COMPANIES TO WATCH IN 2020

The new United States-Mexico-Canada Agreement (USMCA), which updates the North American Free Trade Agreement (NAFTA), is expected to benefit many companies, particularly those based in the United States. According to the financial magazine *Barron’s*, the car industry (Tesla, General Motors and Ford), as well as the agri-food industry (Danone North America and Tyson Foods) will benefit the most from this new treaty. The magazine also advises investors to keep an eye on steel producers U.S. Steel and Nucor, as the agreement includes higher quotas for North American steel used for car manufacturing.

TSLA GM F DANDY TSN X NUE

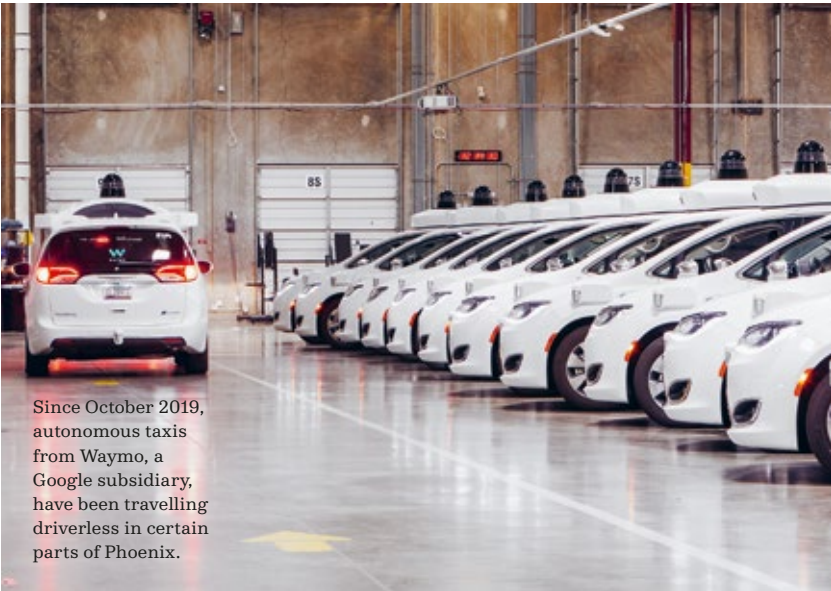


“I think the rich need to pay more taxes than they do currently, and that includes Melinda and me”

Bill Gates in a note published on 30 December on his blog, *GatesNotes*.

automobile

GOOGLE REFINES ITS AUTONOMOUS VEHICLE



Since October 2019, autonomous taxis from Waymo, a Google subsidiary, have been travelling driverless in certain parts of Phoenix.

GOOGLE

After beginning an exclusive partnership with Renault-Nissan in 2019, Waymo (Alphabet's self-driving car project) has acquired Latent Logic, a UK company that began in the IT department of the University of Oxford and specialises in simulation software. Latent Logic is

expected to help Waymo make its test drives more realistic by using a form of automatic imitation learning. This acquisition also marks the launch of Waymo's first European engineering hub, which will be based in Oxford.

GOOGL

industry

STRATEGIC SHIFT AT DÄTWYLER



An employee of Dätwyler's pharmaceutical packaging division

DÄTWYLER

Dätwyler, based in the canton of Uri, has separated from its companies Distrelec and Nedis, distributors of electronic products. The revenue from these companies was 300 million Swiss francs in 2018. The central Swiss industrial supplier has decided to focus on sealing solutions (particularly for health care, cars and construction), which is a booming industry. The two entities were sold to Aurelius, an asset management group based in Germany that already owns several distribution companies throughout Europe, including Calumet Photographic, the largest European distributor of photographic equipment. DAE AR4



28.5 M

The number of Apple Watches sold in the world in 2019, according to estimates from Swiss daily *Le Temps*. Switzerland exported nearly 21 million watches in 2019.



250 M

The number of vegetarian burgers that Beyond Meat is expected to sell each year in the United States via its partnership with McDonald's, according to UBS Bank. This would bring Beyond Meat's annual revenue to \$325 million.



“I am disappointed with the results of COP25. The international community lost an important opportunity to show increased ambition.”

Antonio Guterres, UN Secretary-General in a press release.

insurance

LOWER BILLS FOR INSURERS



Fifteen natural disasters have caused more than \$1 billion in damage in 2019. Here, the dramatic fires that ravaged Australia.

SAEED KHAN / AFP

In its latest report, the reinsurer Swiss Re estimates that the total cost of natural and man-made disasters in 2019 was \$56 billion, compared to \$93 billion in 2018 – a 40% decrease. As such, amounts paid by the insurance and reinsurance sectors continue to decrease after a peak in 2017, when costs reached a record \$144 billion. According to UK-based Christian Aid, 15 natural disasters caused more than \$1 billion in damage last year. Seven of those disasters cost more than \$10 billion and each was linked to climate change. SREN

KICKSTARTER



ORBA

ORBA, AN ORCHESTRA IN YOUR HAND

US start-up Artiphon is familiar with Kickstarter. In 2015, its first product – a digital musical instrument called “Instrument 1” – raised more than \$1 million via crowdfunding and was named the best musical invention by *Time Magazine*. Orba, its new minimalist music creation device is also en route to success – it has already raised nearly \$1.5 million. With eight buttons, this device is about the same size and shape as half an orange and fits in the palm of your hand. It includes a synthesizer, looper and MIDI controller that lets you create songs in a fun way, regardless of whether or not you know how to play an instrument.

FUNDS RAISED
\$1,442,074

AVAILABLE
APRIL 2020

SCANS

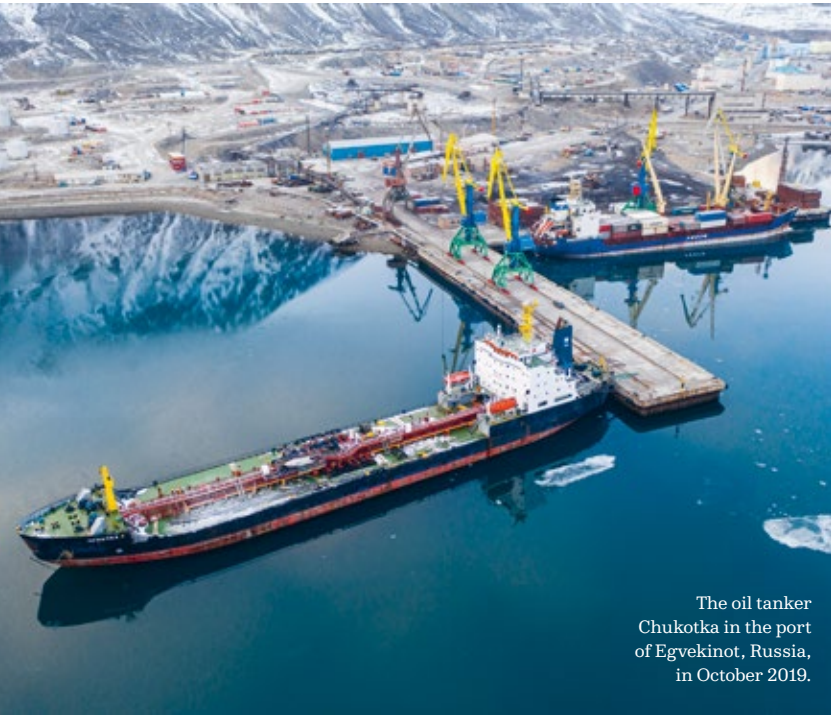


21,400 sq. m

The size of the new headquarters and R&D centre for Jeff Bezos's company Blue Origin. It is located in Kent, near Amazon's headquarters.

hydrocarbons

RUSSIAN OIL FLOWS FREELY



The oil tanker Chukotka in the port of Egvekinot, Russia, in October 2019.

ISTOCK

In 2019, Russia reached a new production record since the fall of the Soviet Union, with 11.25 million barrels of crude oil produced per day. This is equivalent to 560.2 million tonnes, up 0.8% compared to 2018. Russia has nearly reached the amount produced

in 1987, when 11.416 million barrels were produced per day. The 2019 figure was reached despite the OPEC+ deal, which predicted a reduction in Russian production in 2019. In 2020, the Russian Ministry of Energy is aiming for production of between 555 and 565 million tonnes.

THE FLOP

New York parking meters and the 2020 bug

Twenty years after the hysteria of the millennium bug, aeroplanes still have not fallen from the sky. However, tens of thousands of parking meters broke down across New York because of a 2020 bug. Thousands of drivers were unable to use their credit cards to pay at meters. Authorities confirmed that the software running

the meters had an end date set to 1 January 2020, which was not updated by French manufacturer Parkeon, the global leader in parking meters, which belongs to Astorg Partners, one of Europe's largest investment firms. Tickets were still issued as normal and it is still unknown whether or not the tickets will be cancelled.

sound

SMART SPEAKERS WANT TO SPEAK THE SAME LANGUAGE

The number of smart speakers around the world is expected to exceed the number of tablets in 2021, according to US firm Canalys. To capitalise on this trend, industry heavyweights have decided to join forces to develop an open standard for all smart home objects, called "Connected Home over IP". This project, which includes Google, Apple and Amazon, aims to create a connectivity standard based on internet protocol (IP). The standard will help manufacturers develop products that work with all assistants, whether Alexa, Siri or Google Assistant.

AMZN GOOGL AAPL

chemistry

SYNGENTA SOON LISTED IN CHINA?



"In fact, Libra in this form has failed"

Ueli Maurer, head of Switzerland's Federal Department of Finance, in an interview with SRF regarding Facebook's cryptocurrency and its chances for success.



SYNGENTA

Chinese conglomerates ChemChina and Sinochem announced in early January that they would join their agrochemical businesses in a new holding company. This reorganisation would involve Basel-based agrochemical group Syngenta, acquired for nearly 45 billion Swiss francs by ChemChina in 2016. The new entity, Syngenta Group, will be based in Basel. The CFO will be Chen Lichtenstein, the current CEO of Adama Agricultural Solutions, which is currently listed on the Shenzhen Stock Exchange and will also be integrated into the new Syngenta Group. According to Reuters, this reorganisation aims to facilitate the new group's 2020 IPO on the trading platform STAR Market in Shanghai. But ChemChina denies this claim, accusing Reuters of "misinformation".

600500/000553

transport

AIRCRAFT RENTAL COMPANIES ON CLOUD NINE



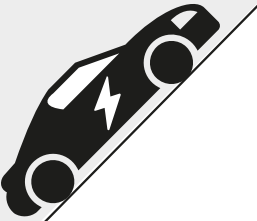
Nearly 800 copies of the 737 Max are grounded worldwide. Here on the tarmac of a Boeing factory in Seattle.

GARY HE / REUTERS

While the B737 Max, grounded since March 2019, is proving very expensive for Boeing – currently costing at least \$10 billion for the aviation company – other groups are thrilled, particularly aircraft rental companies. To minimise the impact of the grounded 737 Max on their finances, airlines are forced to use rented aeroplanes. This is great news for the top three companies in

the industry: Air Lease, AerCap and GE Capital Aviation Services, which have no qualms about raising prices. The rental cost per day for a 737 NG, the predecessor of the 737 Max, went from \$230,000 in January 2019 to \$300,000 in September. These models are already all rented out throughout the first part of 2020.

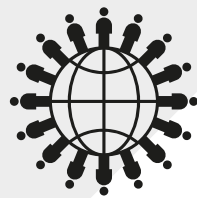
BA AL AER GECAS



+158%

The rise in electric car sales in Switzerland in 2019 compared to 2018, with a total of 13,000 vehicles sold – 6,000 of those were Teslas.

SCANS



1 BN

The increase in the number of people on Earth in 10 years, according to a report from Bank of America Merrill Lynch.



“I’m used to mission impossible”

Carlos Ghosn, during a press conference in Beirut on 8 January, after his incredible escape from Japan.

space
MAXAR: THE FALL OF AN AEROSPACE GEM



A telecommunications satellite built by Maxar Technologies.

Despite a slight rebound in 2019, the share price of Maxar Technologies has lost nearly 70% of its value since January 2018. The space infrastructure specialist, once called the “star of the Canadian aerospace industry”, is struggling, with \$3.1 billion of debt as of September. In order to regain its star status, the company (which became American in 2019) announced in late December that it would sell its

Canadian entity MacDonald, Dettwiler and Associates (MDA) for CAD\$1 billion (US\$765 million). Specialising in spatial robotics, among other things, MDA is known for helping to build a part of the International Space Station. Maxar will keep its space robotics division based in the United States, which develops robotics systems used in NASA’s Mars 2020 rover.

— MAXR

MAXAR

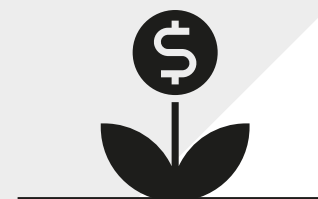
THE IPO

A RESTAURANT CHAIN ON THE MENU

After stealing headlines from its main rivals, the NYSE and Nasdaq, in 2019, the Hong Kong stock exchange welcomed its first IPO of the year from a Chinese restaurant giant: Jiumaojiu international Holdings. The group, based in Guangzhou, owns 328 restaurants in China under five different brands. The two main

brands, Jiumaojiu and Tai Er, made up 98% of its revenue. Jiumaojiu has restaurants decorated in the style of the Shanxi province and Tai Er has been very successful with its fish-based menu. The IPO should allow the group to triple its number of restaurants by 2021, as well as pay back some of its debt.

— 9922



+3.25%

Global growth expected in 2020, compared to 3% in 2019, according to estimates from Aviva Investors.



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Artificial Intelligence (AI) is an exciting megatrend with the potential to change how industries operate and consumers live their lives. From self-driving cars and smart cities, to security and fraud protection, AI provides limitless possibilities. While AI technology offers compelling investment potential, investing in AI requires in-depth expertise of this rapidly evolving industry to identify the top publicly listed AI companies throughout the world.

WisdomTree has partnered with renowned tech experts NASDAQ and the Consumer Technology Association (CTA) to develop a bespoke strategy that identifies and classifies companies directly involved in the AI value chain, providing a pure thematic exposure.

To learn more about the growth drivers of this industry and the structure of the AI value chain, visit:

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the figure

DAVID L. CALHOUN

A new pilot for Boeing

Position
CEO

Age
62

Nationality
American

After a terrible year, Boeing has split from its CEO Dennis Muilenburg. David L. Calhoun, previously senior managing director at investment firm Blackstone, replaced him on 13 January. With an accounting degree from Virginia Tech University, Calhoun spent the majority of his career – nearly 26 years – at General Electric, before joining the audience measurement firm Nielsen in 2006, and then Blackstone in 2014. At Boeing, he will take the helm of a company still embroiled in the 737 Max disaster. But many analysts believe that Calhoun's expertise, which is focused more on finance than engineering, is not enough to overcome Boeing's challenges. However Calhoun knows the US aircraft manufacturer well: he has been a member of Boeing's board of directors since 2009 and became chairman in October 2019.



the country

MOROCCO

Free zones and qualified jobs

Morocco, the subject of this magazine's special feature in 2016, continues its industrial acceleration policies. Free zones, which are vital to this strategy, are appearing all over the country to attract companies in the aeronautics and car industries, among others. Companies that set up shop in Morocco receive tax and customs benefits. Big companies that have been attracted to the country are Renault, which has had locations in Morocco since 2012, and PSA, since summer 2019.

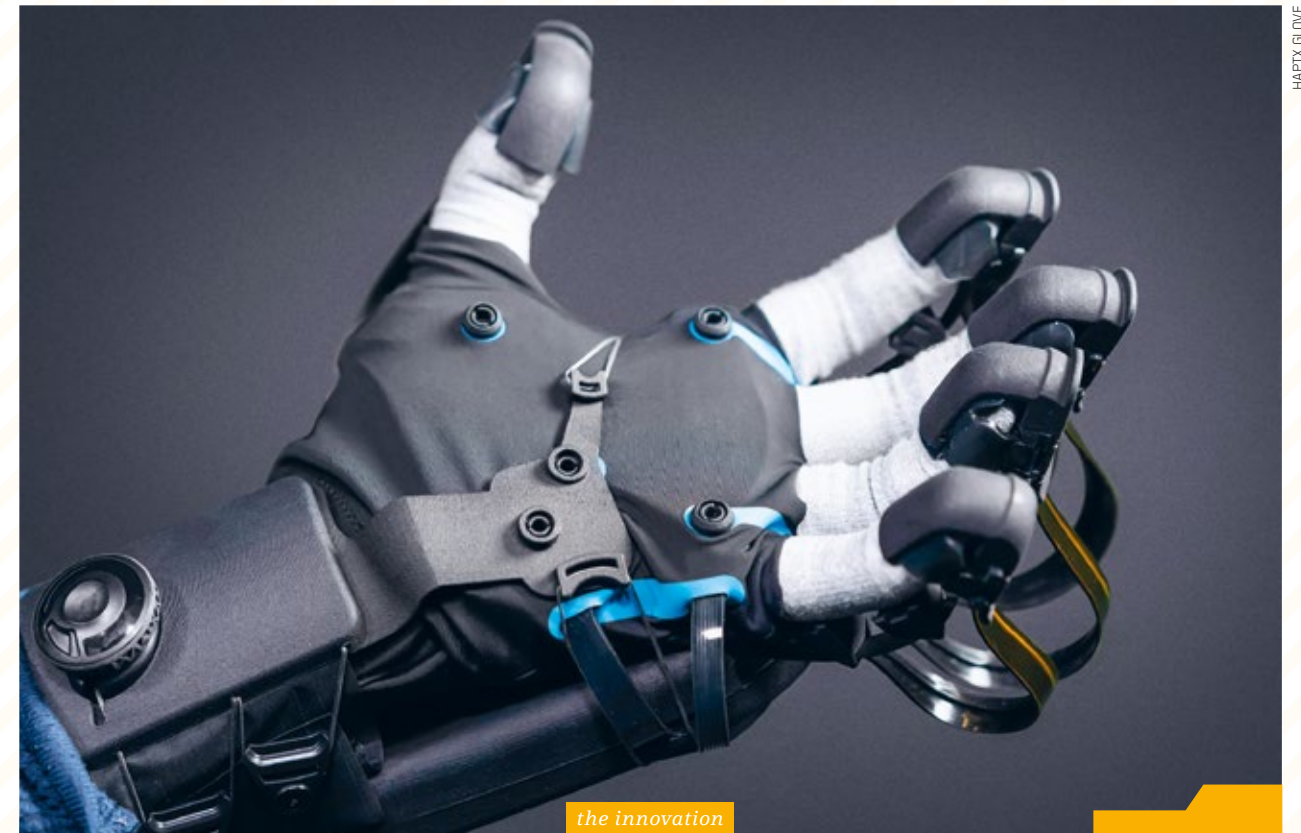
The policy creates jobs in a country where the youth unemployment rate is 25%. But it is unclear whether this strategy will pay off in the long term, as Morocco is still on the European Union's grey list of tax havens and Canadian constructor Bombardier recently left the country after selling its factories to US company Spirit Aerosystems.

Population
36,029,138
(2018)

GDP per capita
\$3,257 (2018)

Growth
+3% (2018)

Main industry sectors
agriculture,
tourism, textiles
and leather,
phosphates



the innovation

HAPTIX GLOVE

Company
HaptX

Launch
not
communicated

Projected cost
not
communicated

Gloves of the future

After two years of testing, the start-up HaptX has raised \$12 million to develop the next generation of haptic gloves designed for virtual reality and telerobotics. This fundraising also comes with a partnership with Advanced Input Systems, a company specialising in human-machine interfaces. The first prototype came out in

late 2018 and has already won over many big clients, such as Nissan and All Nippon Airways. These gloves can render incredibly realistic sensations of touch thanks to an exoskeleton and a liquid that travels through the gloves. The flow and pressure of the liquid are regulated by 130 devices called microfluidic actuators. These

two systems combined can simulate the pressure of an object on your fingers and in your hand, as well as an object's texture, shape, volume and temperature.



Statement

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ANALYSIS

SPECIALISTS' VIEWPOINT

INTERVIEW

“The potential for a correction is very high in the United States”

After years of underperformance, European markets seem to be in the best position to participate in the correction expected this year. Cyclical values are inexpensive and therefore preferred.

BY ANGÉLIQUE MOUNIER-KUHN

As the market saying goes, trees don't grow to the sky. But according to research firm Morningstar, US stocks have already grown nearly six times more than stocks in the rest of the world since the last big market crash in March 2009. As a result, the valuation gap between the United States and foreign markets has continued to widen over the past 10 years. US stocks are expensive. Is it time to look towards other markets? We discuss this idea with Manfred Schlumberger, head of portfolio management at StarCapital. The research team from this management company (a German subsidiary of Swiss-based Bellevue Group), are experts in the links between valuation levels and stock performance.

Do you share the growing belief that the US market is now too expensive?

No matter which benchmark indices you look at, valuations of US shares are not only more expensive than the rest of the world, but also, if you look at historical comparisons, they are now priced even

higher than in the weeks before the 2007 crash. As a result, the Price to Book ratio (ed. note: market price per share divided by accounting value per share) in the United States is currently 3.4, compared to 2.5 in 2007. Comparatively, the ratio is 1.8 in Europe, 1.3 in Japan and 1.7 on average in emerging countries. So the potential for a correction is very high in the United States.

However, it doesn't seem likely that this will happen in 2020. For the market to turn around, either the economic situation would have to deteriorate significantly, the big central banks would have to stop their accommodating monetary policies, or tensions between China and the United States would have to get worse. We don't expect any of these scenarios to happen. Instead, we are predicting improved global growth and continued support from central banks.

How can you explain the valuation gap between the United States and the rest of the world?

The main factor at play here is the profitability of US companies, which far exceeds the profitability of companies elsewhere in the world. As long as this profitability remains high (ed. note: according to Factset, earnings per share of companies on the S&P 500 have on average grown 9.1% over the last 10 years), the threats weighing on the US market will not actually materialise.

“Given its current low valuation, the Japanese market also seems promising”

This profitability is largely boosted by a technical factor: in 2019, the biggest buyers of US stocks weren't institutional or private investors, nor passive funds, but rather US companies themselves through stock buyback programmes. By reducing the number of stocks in circulation, these programmes, which reached a new record high in 2019, mechanically boost the earnings per share.

You're expecting growth to rebound in 2020. Which markets will benefit the most?

Europe seems well-positioned to outperform the rest of the world, partly because the valuations are low, and also because the European indices are very exposed to cyclical values. In certain sectors such as industry, energy, materials and finance, some valuations are

so low that even the slightest improvement in economic conditions will result in increased share prices. Given its current low valuation, the Japanese market also seems promising. However, even though their valuation levels are attractive, emerging markets will likely see limited growth as long as the dollar remains strong and trade relations between the United States and China continue to be tense.

Where is the Swiss market in terms of valuation?

The Swiss market is expensive compared to other European markets, such as Germany, which is expected to perform better in the months to come. But this overvaluation can nevertheless be explained by many high-quality and non-cyclical values in the Swiss Market Index (SMI), such as Nestlé in the essential consumer goods sector, and Roche and Novartis in the health sector.

Most of your research is long-term. What are your predictions beyond 2020?

Our internal research, as well as external studies, show that long-term market returns can be predicted based on current valuation levels. In five to 10 years, we expect that emerging markets will generate the highest performances. This will be the case for Russia in particular, where stocks are affected by the political climate and are now extremely affordable, but also for China and markets in Southeast Asia. ▲



MANFRED SCHLUMBERGER
HEAD OF PORTFOLIO MANAGEMENT
STARCAPITAL

FOCUS

A dark future for nuclear

The outlook for the sector is gloomy as a result of rising costs and competition from renewable energies.

BY ANGÉLIQUE MOUNIER-KUHN

For Austria and Luxembourg, considering nuclear as a sustainable energy source was out of the question. France, Hungary and the UK, however, fought to make sure it was recognised as sustainable. Such battles are typical within the European Union. On 18 December 2019, after much political sparring and arguing with lobbies, the 28 member states finally approved the “taxonomy” project for sustainable activities.

It’s a strange word for an important issue: helping the continent achieve carbon neutrality by 2050 thanks to a harmonised classification system to identify “green” activities. Simply put, the taxonomy initiative aims to channel funds to the green economy. The Commission will continue to make adjustments to the proposal before it comes into effect in early 2022.

Nuclear and gas have not yet been officially included in or excluded from the taxonomy, while solid fossil fuels (such as coal) have been

excluded. It is widely accepted that nuclear power emits little CO₂, and its supporters say that it is therefore an indispensable energy source for combatting climate change. But the management of nuclear waste still raises much uncertainty.

“There is no longer any economic rationale behind nuclear, which continues to survive only for political reasons and thanks to subsidies”

Mykle Schneider, coordinator of the World Nuclear Industry Status Report

“The member states needed to compromise in order to avoid blocking the entire agreement

on taxonomy,” says Nicolas Redon, who specialises in green finance at the media platform Novethic. “That’s why nuclear is now in a sort of quarantine zone.” The European Commission has given itself two years to assess how nuclear waste affects its environmental objectives and decide whether or not to include nuclear in the taxonomy. Most European sustainable-finance labels already prohibit investing in companies linked to the nuclear sector, by setting exclusion thresholds for companies whose nuclear activity exceeds 5% of revenue.

Regardless of what Europe decides, global opinion on nuclear power has been largely negative since the Fukushima disaster in March 2011. Standard & Poor’s recently noted that “concerns about the safety of nuclear plants and nuclear waste storage solutions, an ageing global nuclear fleet (editor’s note: average age is over 30 years), and massively escalating costs for many new projects have added to the industry’s woes.”

In the latest version of its annual study, entitled “Levelized Cost of Energy Analysis”, the bank Lazard calculated that the levelised cost of energy – which measures the net cost of electricity generation over the entire lifetime of a given system – has fallen 70% for wind power and 80% for solar over the past 10 years, thanks in particular to massive investment from China. “Over the same period, the cost for nuclear has increased 26%,” says Mykle Schneider, coordinator of the *World Nuclear Industry Status Report*. The main reason for that has been increased safety measures introduced after Fukushima.

In its most recent edition, the *World Nuclear Report* highlights a balance of power that is very unfavourable to the nuclear sector – which still represents 10% of the global energy mix – compared with renewables. The report states that “to protect the climate, we must abate the most carbon at the least cost and in the least time”. It goes on to say: “nuclear power is slow. It meets no technical or operational need that low-carbon competitors cannot meet better, cheaper, and faster.”

The known amount of investment decisions for the construction of nuclear reactors in 2018 was \$33 billion for roughly 6.2GW, which is less than a quarter of the amount invested in wind and solar power. As more and more projects are delayed and scrapped, the number of reactors under construction worldwide is down for the sixth year in a row. A total of 46 reactors were under construction in mid-2019 – including 10 in China – versus 68 in late 2013.

Another sign of the times: in ten of the 31 countries that have nuclear plants, more electricity is now generated from renewable sources (excluding hydro) than from nuclear. Global electricity production from nuclear is below its 2008 level.



A sign of the times, the Mühleberg nuclear power plant in the canton of Bern was shut down on December 19. Its operating cost had become too high given the investment required.

CHRISTIAN BEUTLER / KEystone

Germany, which plans to phase out nuclear power by 2022, recently announced that in 2019 it generated more public electricity from renewable sources (46%) than from coal and nuclear combined (43%).

Mykle Schneider offers a strong conclusion: “Whether the life of existing nuclear plants is extended or new plants are built, nuclear is not an efficient way to address the urgency of climate change. On the contrary, it directs investment away from renewable options that are much more competitive. The reality is that there is no longer any economic rationale behind nuclear, which continues to survive only for political reasons and thanks to subsidies.”

Low profitability, delivery delays, skyrocketing costs – the stock

market also provides an indication of what is going on. In 2019, the MVIS Global Uranium & Nuclear Energy Index (25 companies generating over 50% of their revenue from nuclear) lost 2%, while the Renewable Energy Industrial Index (“RENIXX”, comprising the 30 biggest companies worldwide in the renewable-energies sector) gained nearly 60%.

Since 2007, the total underperformance of the MVIS nuclear index has been around 80% compared with a global benchmark such as the MSCI World. Back then, nuclear operators saw their share prices peak at levels that seemed unattainable for many of them, such as France’s EDF, whose stock is now worth nine times less than in 2007, and Germany’s RWE, whose share price is still four times less than at its peak in January 2008. ▲

LALIQUE

from crystals to hotels

Whisky, perfume, hotels and beauty products: the Zurich-based crystal group diversifies for growth. We take a closer look.

BY BENJAMIN KELLER



Do you know the Lalique brand? If not, that's understandable, as most of its products are reserved for the ultra-rich. Think crystal vases priced at €60,000 and €730 for a table clock decorated with swallows. Lalique also sold the most expensive bottle of whisky of all time (\$628,000 at Sotheby's in 2014), as well as decor from the renowned Orient Express, to name just a few of the group's most spectacular items. The crystal maker is legendary, but not immune to change. In fact, Lalique has evolved significantly in recent years.

The group, headquartered in Zurich and listed on the Six Swiss Exchange since 2018, no longer focuses solely on jewellery, decorative objects and architectural pieces. Lalique has significantly expanded its range of products and its portfolio now includes perfume, cosmetics, whiskies and hotels-restaurants-showrooms. This diversification is inevitable for growth. Indeed, Lalique has a scale

problem: crystal is no longer growing. "It's a difficult market," said René Weber, analyst at Vontobel Bank. Yet crystal is in Lalique's DNA.

A HISTORIC HOUSE

When René Lalique engraved the letters "RL" on his creations for the first time and created the brand in 1888 in Paris, the French jeweller always favoured glass. He paired it with other materials such as gold, precious stones, mother-of-pearl, ivory, horn and enamel, which at the time was ground-breaking artistry. Upon René's death in 1945, his son Marc decided to shift the brand towards crystal.

When René Lalique's grand-daughter became head of the company in 1977, she decided to continue in the same vein. Marie-Claude also decided to break into what would become one of the group's flagship products: perfume. In 1994, the company joined the portfolio of French group Pochet, specialising in luxury packaging. It was then acquired in 2008 ▶

BY THE NUMBERS

136.4

2018 revenue
in millions of euros

720

Number of employees

1888

Year the company
was founded

1

Number of factories,
at Wingen-sur-Moder
in Alsace, France

The bar at Villa René Lalique in Alsace. The premises houses a 5-star hotel, a two Michelin-star restaurant and a wine cellar. They all act as a showroom for the brand.

by Swiss group Art & Fragrance, renamed Lalique. The goals of the acquisition were to expand the brand around the world, increase production capacities and... diversify.

The company collaborates with some of the most “bankable” contemporary artists, such as Damien Hirst

“At the time of the acquisition, Lalique was struggling,” said CEO Roger von der Weid. As a result, the new direction involved restructuring. “The plan essentially was to maintain strict, efficient cost control, rescale distribution networks, invest in factory modernisations and diversify the offer, as well as open new points of sale in strategic markets.” In total, €30 million was invested into Lalique, excluding hotels and restaurants. Indeed, the group recently opened three luxury hotels with Michelin-starred restaurants located on ancient estates: two in Alsace and one in Bommès, near Bordeaux. These restaurants also function as a showcase for Lalique products.

CONTEMPORARY ART

Today, the Lalique brand includes six divisions, all stemming from crystal production: decorative objects, interior architecture, perfume, jewellery, art and hotels/gastronomy. In art, the company collaborates with some of the most “bankable” contemporary artists, such as Damien Hirst. The British artist (and businessman) partnered with Lalique to create a collection that includes his famous skulls in all forms, as well as other objects.

Since 1921, all Lalique crystal products are produced in the brand’s

historic factory in Wingen-sur-Moder in Alsace, a region with a strong tradition of glassmaking. A Lalique museum also opened there in 2011. The factory brings together some of the best artisans in France, who combine ancient glassmaking techniques such as lost-wax casting (a process of moulding from a wax model) with modern methods like digital work and 3D printing.

Lalique is the second-largest crystal brand in the world behind French group Baccarat (bought by a Chinese fund). The eponymous brand makes up 60% of the group’s revenue. The other half comes from the beauty division, which includes Lalique perfume, but also Jaguar, Bentley, Samourai, Grès, Alain Delon and soon Brioni – the company just signed an exclusive licensing contract to create a perfume collection. The Beauty division also includes Ultrasun sun products, which are growing fast (see inset below).

SCOTCH WHISKY

Finally, the Zurich-based company announced in March 2019 that it would acquire a portion of the oldest functioning single malt Scottish whisky distillery, The Glenturret. “We’re preparing to relaunch the brand in 2020 in the super-premium segment, following a complete re-branding,” said Roger von der Weid. The acquisition was completed via a joint venture with Swiss entrepreneur Hansjörg Wyss; each company holds a 50% share. The goal set by the CEO is to establish Lalique as a lifestyle luxury brand, “in other words, a French way of living”. And while Lalique is still inevitably seen as a very high-end brand, Roger von der Weid emphasises that the diversification strategy will also “democratise” the brand, “making it young again” with more accessible and/or functional products such as perfume and costume jewellery. “Our offer starts at €65 for a scented candle.” That’s not quite within reach for everyday consumers, but almost. ▲

— LLQ

ANALYST ADVICE

LICENSED PRODUCTS SAVE THE DAY

The Lalique group posted subdued results in the first half of 2019. The company generated a net loss of €0.8 million, compared to a profit of €1.3 million the previous year. But revenue was up 5%, reaching €70 million. These results are not on par with analyst expectations.

The loss can mainly be explained by the cost of acquiring the Scottish whisky distillery The Glenturret. Sales of products from the Lalique division were down 3%, reaching €35.5 million. Crystal performed well (up 4%), but Lalique perfumes dropped by 25%, due to difficult market conditions in the Middle East and the Iran embargo. Tensions in Hong Kong also hindered success. “The group is expanding its network of crystal shops in Japan, but that is taking longer and costing more than expected,” said Daniel Bürki, analyst at Zurich Cantonal Bank.

Meanwhile, the beauty division is doing well. Sales of Ultrasun sun products were up 18%, reaching €15.5 million. And revenue from licensed perfumes (Jaguar, Bentley, etc.) is trending upwards. For René Weber, analyst at Vontobel Bank, Ultrasun and its licensed products will drive Lalique’s future growth, as well as Lalique perfumes. Bürki agrees, adding that the whisky business could also bring in lots of revenue.

The group revised its outlook downwards for the current year, predicting a EBIT margin of 1.5%, compared to 4.5% in 2018. “We’re focusing on gradually growing our profitability starting in 2020,” said CEO Roger von der Weid. The priority markets for Lalique are China, Japan and Southeast Asia. Analysts recommend keeping shares, but believe the share price is currently a bit high.

THE WORLD AHEAD OF US

WE’RE CLEANING UP OUR ACT.

100%
FREE FROM
HEAVY FUEL OIL

Worldwide from July 2020, our ships will exclusively use marine gas oil with a maximum sulphur content of only 0.1 %. We are thus going above and beyond the statutory provisions and – thanks to forgoing heavy fuel oil – are reducing the sulphur emissions of our fleet by 80 %. In this way, we are setting standards for the cruise industry and protecting that which fascinates both us and our guests.



HAPAG ¹⁸/₉₁ LLOYD
CRUISES

Catalytic converter technology, cold ironing and forgoing heavy fuel oil. More about this and other environmental protection measures at www.hl-cruises.com.

Hong Kong is becoming a minefield for companies

As demonstrations continue in the port city, several groups find themselves involved in the conflict.

BY JULIE ZAUGG, IN HONG KONG

“Don't you feel guilty drinking your coffee?” This accusation was spray painted in yellow capital letters on a Starbucks in the centre of Hong Kong at the beginning of December, not far from a demonstration of nearly 800,000 people. The cafe was also vandalised: protesters broke the windows, upended sofas and shattered coffee cups.

The protesters, who have been on the streets for more than seven months protesting against the increasing control of Beijing, were actually angry at restaurant group Maxim's, which operates the local Starbucks cafe. In September, Annie Wu, the daughter of the restaurant empire's founder, denounced the protesters and called on Beijing to retaliate in a speech before the UN Human Rights Council in Geneva.

Starbucks is just one of the brands that have sparked ire from protest-

ers. Restaurant chains Genki Sushi, The Cheesecake Factory and Shake Shack, all managed by Maxim's in Hong Kong, were also graffitied or ransacked. Restaurants owned by Japanese brand Yoshinoya suffered a similar fate after its head participated in a pro-Beijing march, and Chinese electronics groups Huawei and Xiaomi were also targeted. Several branches of state banks Bank of China and China Construction Bank were set on fire.

Indeed, being part of the pro-Beijing camp could have consequences that reach far beyond the Hong Kong market

“Protesters targeted brands that are strongly associated with China, as

well as brands that actively made life for the protesters more difficult,” said Terence Chong, economics professor at the Chinese University of Hong Kong, citing HSBC as an example. In December, the British banking group froze an account containing HKD 70 million (8.7 million Swiss francs) that was created to pay protesters' legal fees. In subsequent weeks, HSBC branches were vandalised and set on fire several times.

But violence wasn't the protesters' only weapon. “The protesters are very disciplined and well-organised, particularly via social networks, so they were able to boycott several brands with remarkable effectiveness,” said Chong. Protesters created a colour-coded map of the city: establishments that supported the protests were marked in yellow and those against them were marked in blue. Some of these blue businesses saw their revenue fall more than 40%.

Indeed, being part of the pro-Beijing camp could have consequences that reach far beyond the Hong Kong market. US video game giant Activision Blizzard found itself in the eye of the storm in October, when it announced the suspension of professional gamer Blitzchung for supporting the protesters. Using the hashtag #BlizzardBoycott, thousands of gamers instantly posted screenshots to Twitter, showing that they had cancelled their *World of Warcraft* subscriptions. US senators criticised the company and a group of Blizzard employees went on strike.

However, brands that decided to support the protests, such as airline Cathay Pacific, didn't fare much better. The local company won praise from protesters when a pilot used one of the protest slogans during an announcement to passengers, and a union published a press release in support of the demonstrations. But

the honeymoon period was short-lived. In early October, Beijing announced that Cathay employees who had participated in the protests would be banned from working any flight to China. A call to boycott Cathay also went around Chinese social networks. As a result, Cathay Pacific backtracked and fired around 20 employees linked to the protests, while the CEO was pressured to resign.

Luxury brand Tiffany's had to release a denial after an advert showing a Chinese model covering her right eye with her hand (a symbol adopted by the protesters in support of a woman whose eye was injured by police) sparked outrage on Chinese social networks.

BRANDS CENSORING THEMSELVES
To avoid angering Beijing, many companies decided to censor themselves. California shoe brand Vans, which was holding a trainer design con-

test, suddenly pulled a design using the symbols adopted by protesters (umbrellas, gas masks and the Hong Kong flag). Google and Apple removed from their app stores a video game inspired by the Hong Kong movement, as well as an app that can track police as they move about the port city.

“These examples are proof that even the biggest companies are not protected from the ire of the government,” said Irving Schenkler, management communication expert at the New York University Stern School of Business. These companies are in a minefield, because if they concede to the demands of an authoritarian government, they could damage their reputation in democratic countries. “The millennial generation is growing in these countries, and this segment of the population favours brands that defend their values,” said Schenkler.

Given this peculiar context, companies are faced with a difficult decision: either protect their access to the gigantic Chinese market, or maintain their customer bases in Europe and the United States. The US National Basketball Association (NBA) paid the price when Daryl Morey, the general manager of the Houston Rockets, tweeted in favour of the Hong Kong protesters. The tweet was quickly followed by a series of embarrassed press releases from the NBA, distancing itself from Morey. After the tweet, the league lost most of its contracts in China, while gaining support from the US public.

According to Schenkler, it is rare that a brand can truly capitalise on its political stances: “It only works if the position corresponds with the company's fundamental values, the opinions of its main leaders, and its public image.” As for the Hong Kong protests, this time, Starbucks, the only brand with a reputation for activism (on behalf of LGBT rights), found itself on the wrong side, despite its best intentions. ▀

AHMAD MASOOD / REUTERS



A Starbucks Coffee in Hong Kong, a collateral victim of anti-Beijing protests (November 2, 2019).

The HBO Max video streaming platform will be launched in May in the United States. Notably, it will carry the *House of the Dragon* series, a prequel to the legendary *Game of Thrones*.

DOSSIER

STREAMING IS COMING

Platforms are cropping up everywhere and users can stream everything from films to video games. The almost endless selection is entirely changing the way we consume cultural content.

BY BERTRAND BEAUTÉ

34. Infographic: streaming services take over the world

36. Traditional TV is putting up a fight

40. Interview with Gilles Marchand, director general of SSR

44. Podcasts... to the rescue?

46. Video games: the final holdout

48. Twitch and the future of TV

50. Sport, the new El Dorado for streaming services

52. The kings of streaming

61. Video on demand, a drain on energy

Dossier prepared by:
Bertrand Beauté,
Ludovic Chappex and
Grégoire Nicolet

Mickey Mouse fans, hold on to your chairs. Entertainment giant Walt Disney is launching its streaming service in Switzerland on 24 March for 9.90 Swiss francs a month. Available in the United States since November 2019, Disney+ has already started off with a bang. Just 24 hours after its launch, the platform had landed 10 million subscribers. Now it has nearly 25 million.

“The success of Disney+ shows that people want on-demand services,” says Thomas Coudry, analyst for the investment bank Bryan, Garnier & Co. “In just a few years, streaming has revolutionised the way we consume entertainment, whether it’s music, video, or, increasingly, video games.” As evidence that there is no going back, Apple formally announced in June 2019 that it would discontinue iTunes, its iconic music software, to focus on its streaming applications: Apple Music, Apple Podcasts and Apple TV.

A pioneer in the field, the music industry was turned on its head by streaming, which now generates nearly half of global recorded music revenue. And that figure stands at

more than 80% in the United States through the streaming leader Spotify.

Cloud gaming is only getting started, with revenue of about \$100 million in 2019, while the video game industry as a whole is worth \$150 billion. But the launch of Stadia in November 2019, Google’s cloud gaming service, looks likely to accelerate things (see p. 46).

The number of Video On Demand subscriptions would increase from 508 million in 2018 to almost 1 billion in 2024

Between music and video games, video streaming is growing fast. The planetary success of Netflix, with more than 150 million paid subscribers worldwide in the second quarter of 2019 (up 24% in the past year), shows that TV and cinema are following the same path as music.

In a study published in June 2019, the firm Digital TV Research estimated that the number of Subscription Video On Demand (SVOD) subscriptions would increase from 508 million in 2018 to almost 1 billion in 2024, for growth of nearly 90%.

But the success of streaming doesn’t stop there. Audio books, after long being shunned, are now thriving thanks to this new form of distribution. According to a Deloitte study published in December 2019, the audio book market is expected to grow 25% to \$3.5 billion in 2020. Media content (written press and radio) is also massively migrating to streaming services, with more and more podcasts and live shows. In early January, the press conference given by former Renault-Nissan CEO Carlos Ghosn, after his dramatic escape from Japan, was broadcast live and streamed over a countless number of websites.

“Live streaming is the next web revolution,” says Romain Tixier, co-founder of Yokotu, a London-based marketing agency. “For example, we work with Warner UK to develop private concerts available through live streaming.” >



With 28 billion streams, Canadian recording artist Drake is the most streamed artist of the last decade on Spotify. Ed Sheeran and Post Malone rounded out the podium.

GETTY IMAGE

1993

In Palo Alto, California, Severe Tire Damage, a garage rock band started by IT workers, broadcasts live over the internet. This was the first streaming of its kind in the world.

1995

RealNetworks creates the RealAudio format. RealAudio becomes a streaming pioneer, with compressed audio flows and the use of codecs.

1997

Netflix is created. At the time, the company was just an online DVD rental service.

2001

Rhapsody, the first online platform for purchasing music, is created, offering music on demand for a monthly fee.

2003

Myspace is created, becoming a place for musicians to freely publish their music. It was immediately successful. For a certain period, Myspace was one of the most-visited sites in the world.

2005

Three former PayPal employees create YouTube, the ubiquitous online video sharing site.



IMAGE PRESS AGENCY / NURPHOTO

"By releasing all the episodes from a series in a single go, Netflix created the phenomenon of binge-watching"

Olivier Glassey, sociologist
at the University of Lausanne

Platforms such as Mixer and Twitch, not to mention social media including Facebook and Twitter, now stream a wide range of live content. And Amazon Prime Video is also getting in on the game. In December 2019, the US online retail giant began streaming British football championship games live, breaking the monopoly held by Sky and BT Sport. Between 2019 and 2022, Prime Video subscribers can stream 20 matches a year. Romain Tixier predicts that "Amazon will buy more rights to stream live sports events. And YouTube is also keenly interested." Meanwhile, the NBA has decided not to go through any intermediary. In November 2019, the association announced the launch of its own subscription streaming service, which will stream basketball games live (see p. 50).

With 34 nominations, Netflix looked set to dominate the 2020 Golden Globes. In the end, it had to settle for just two prizes, including Olivia Colman's best actress win for *The Crown*.

That will reshape the world of sports broadcasting rights before other sectors are affected. "It's still too early to talk about it, but virtual reality is coming. And it will be streamed," says Julien Leegenhoek, a tech stock analyst at Union Bancaire Privée (UBP). "All the fantasies of the internet bubble are becoming a reality with streaming."

BINGE-WATCHING

This revolution is shaking up our consumption habits. "By releasing all the episodes from a series in a single go, Netflix created the phenomenon of binge-watching," says Olivier Glassey, a sociologist specialised in new technology at the University of Lausanne. "It's a bit ironic. Video on demand was supposed to give us more freedom, letting us watch our series when and where we want. But the format encourages us to pull viewing marathons. As long as we can avoid the spoilers at the office."

Companies have come up with a variety of business models to convert as many customers as possible. For example in video, Netflix offers SVOD service to access its library. However, Amazon has integrated its video service into a larger system called Prime, which includes audio and video content alongside faster delivery. This model is similar to the one implemented by Apple, in

which Apple TV+ service is free for one year for owners of its devices (iPod, iPhone, Mac, iPad, etc.). Quibi, the future platform set for launch in April, is exclusively designed for smartphones. Developed by Jeffrey Katzenberg, co-founder and former CEO of DreamWorks Animation, this streaming service will provide original content, each video lasting no longer than 10 minutes, for the mobile platform.

To contend with the American giants, the Japanese firm Rakuten offers AVOD (or Ad-supported Video On Demand) service with the launch of Rakuten TV in Europe since late 2019. Will that be enough to dent Netflix, Apple or Amazon? "Except perhaps in China, where specific platforms are available, such as Tencent, Alibaba and iQiyi, the global culture industry is dominated by the United States," Thomas Coudry says. "And that's not about to change, because the barriers to break into the market are so high."

To resist the windstorm of American content, French television stations France Télévisions, M6 and TF1 for example have decided to join forces to launch the platform Salto in 2020. But the €15 million they plan to invest annually in producing exclusive content pales in comparison to the \$15 billion spent by Netflix in 2019. ▲

A definition of streaming

From a technical perspective, streaming refers to a flow of data, allowing viewers, for example, to watch a continuously playing video. Unlike downloads, the data is not stored permanently on the user's smartphone or computer. Streaming is commonly associated with video services (Netflix, YouTube, etc.) and on-demand music (Spotify, Deezer, etc.). But this technique is also used in many other applications, such as video-conferencing (Skype), live internet programmes (Twitch) and video-surveillance.

But the use of the term "streaming" has gone far beyond information technology vocabulary. Streaming has become a global cultural phenomenon that mainly refers to the entertainment and media industry. That's primarily what we will cover in this feature.

2006

Scribd, a US platform offering e-books and audiobooks, is launched. Dubbed the "Netflix for books", it now has over one million users.

2007

Netflix launches its video-on-demand rental service accessible via personal computers.

2008

Spotify is created. The Swedish platform goes on to become the global leader in music streaming.

2014

Sony creates PlayStation Now, a service providing video games on demand.

2019

Google launches Stadia, its cloud gaming service. Disney and Apple enter the now-crowded video-on-demand market.

2020

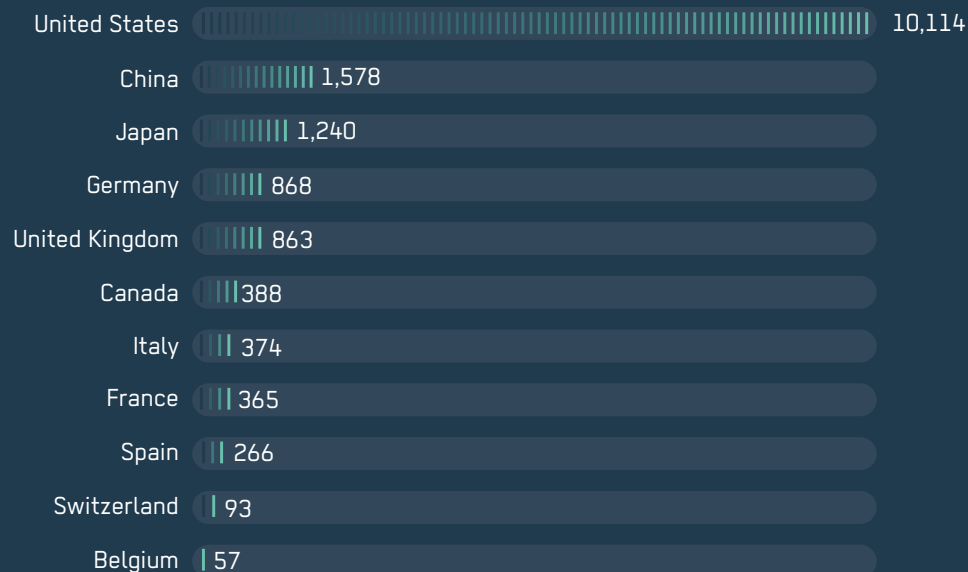
WarnerMedia joins the video-on-demand market with HBO Max, and Microsoft will launch its video game-on-demand service xCloud.

STREAMING SERVICES TAKE OVER THE WORLD

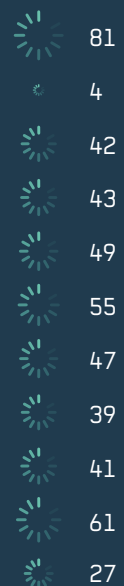
VIDEO ON DEMAND: THE UNITED STATES IS FAR AHEAD

The US market is clearly the most mature, with revenue exceeding €10 billion in 2019.

2019 REVENUE (in millions of euros)



AVERAGE REVENUE PER USER (in euros)



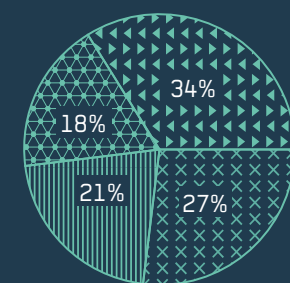
TOP 10 MOST WATCHED TV SERIES IN 2019

While Netflix produces three of the top 10 series watched in the United States, traditional channels are still in the fight.



X-RATED VIDEOS: STREAMING HEAVYWEIGHTS

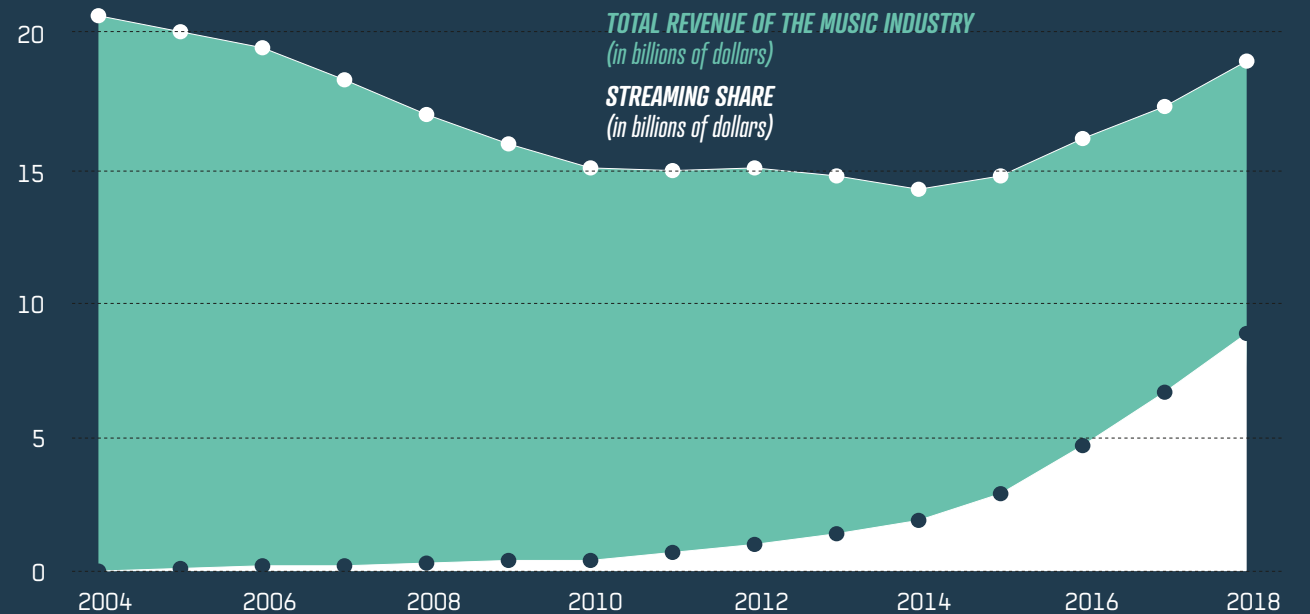
Just behind video on demand, pornographic content makes up more than one quarter of all streaming video.



- ▶ Video on demand (Netflix, Amazon Prime...)
- ✕ Pornography (Pornhub, Youporn...)
- III Video platforms (YouTube, Dailymotion...)
- 📺 Other videos (Facebook, Instagram...)

STREAMING SAVED THE MUSIC INDUSTRY

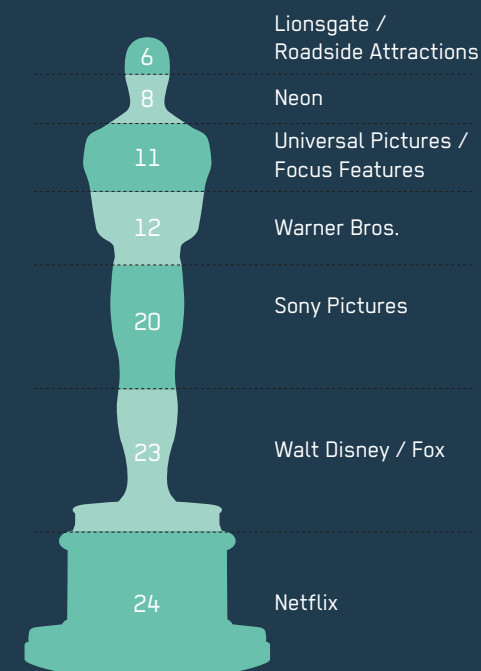
Global music sales are up thanks to streaming services.



THE OSCARS CHANGE WITH THE TIMES

For the first time, Netflix becomes the most nominated production studio.

NUMBER OF OSCAR NOMINATIONS IN 2020



IN NUMBERS

15 BN

The amount in dollars Netflix spent to produce original content in 2019

80%

The percentage of revenue generated by streaming services for the US music industry in 2019, compared to 47% globally

60%

The share of video streaming in global data flows, or 1.05 thousand billion billion octets (1.05 zetta-octets) in 2018

15,000

In kilometres, the average distance a piece of digital data (octet) travels, equivalent to 37% of the Earth's circumference, which is 40,000 kilometres

45 M

The number of servers that store data around the world

8 BN

The number of hours of video streamed each month in the United States in 2018, equivalent to 900,000 years

Sources: Statista Digital Market Outlook, Netflix, Recording Industry Association of America (RIAA), The Shift Project, Swissquote Magazine, The International Federation of the Phonographic Industry (IFPI), GreenIT, TV Time.

TRADITIONAL TV IS PUTTING UP A FIGHT

Disrupted by Netflix, Amazon Prime, Hulu and Apple TV+, traditional television channels are preparing their streaming offers.

BY BERTRAND BEAUTÉ AND LUDDOVIC CHAPPEX

“Young people don’t watch television any more,” says Julien Leegenhoek, tech stock analyst at Union Bancaire Privée (UBP). In Switzerland, the amount of time 15–29-year-olds spend watching television has decreased by 50% in 10 years (barely more than 45 minutes a day in 2018), according to the Swiss Federal Statistical Office.

In the US, the pioneer of streaming, almost every demographic group is showing a declining interest in traditional television: paid television channels have lost more than 10 million subscribers in the last 10 years, according to the latest release from consulting firm Leichtman Research. Even more surprising is that 74% of US households are now subscribed to one of the top three video on demand services (Netflix, Amazon and Hulu), compared to 52% in 2015.

“The decline of linear television is inevitable,” says Thomas Coudry, an

analyst at investment bank Bryan, Garnier & Co. “Especially because the arrival of new platforms such as Disney+ will expand the SVOD offering and encourage more people to subscribe. This trend puts pressure on players in the traditional television industry, both paid and free, who now have to react.”

“War has only just begun. And it will be epic.”

Julien Leegenhoek, analyst at Union Bancaire Privée

Like RTS in Switzerland, Canal+ (Canalplay) and HBO (HBO Now), channels have started to offer “replay” offerings, giving viewers on-demand access to programmes that have already aired on their channels (see the interview with

Gilles Marchand on p. 40). But at a time when Netflix and Amazon Prime are ramping up their original content, that is no longer enough.

A major turning point was when Walt Disney, which has entertained generations of children via the Disney Channel, launched its streaming service. As well as aggregating its older productions, Disney is also offering exclusive content on its Disney+ platform, such as *The Mandalorian*, a *Star Wars* universe spin-off. It was one of the first strong reactions from a traditional player.

And it won’t be the last. In December 2019, US companies CBS and Viacom finalised their merger. The goal was to become powerful enough to develop an audience for its streaming offering, CBS All Access. “We are becoming one of only a few companies with the breadth and depth of content and reach to shape the future of our industry,” said Bob Bakish, CEO of ViacomCBS, in a press release.

Since December 2019, *Sex and the City 2* has been available on Netflix. Released in 2010, the film is the sequel to the *Sex and the City* original series directed by Michael Patrick King.



HBO



Nicknamed the queen of American network TV, Shonda Rhimes joined the Netflix team in 2017. This star showrunner is notably behind the worldwide hit *Grey's Anatomy*.

Netflix: the end of the golden age

But the biggest moves are still to come, and, as always, will be in the United States: NBCUniversal (Comcast) has announced it would launch its SVOD service, Peacock, in April 2020. It will be joined by the long-awaited HBO Max from the WarnerMedia group, expected in spring 2020, which will include flagship titles such as *Westworld*, *Chernobyl*, *The Sopranos*, *Sex and the City* and the massive hit *Game of Thrones*. It will also host original content, such as a spinoff series from the *Gremlins* universe, which is currently in production.

“The expression ‘streaming wars’ has become widespread, and it isn’t just a figure of speech,” says Leegenhoek. “In terms of the players involved, the number of platforms and the colossal investments expected, the war has only just begun. And it will be epic.”

Netflix is already feeling the effects of the launch of Apple TV+ and especially Disney+, which both came on the scene in November 2019. In Q4 2019, the California company only gained 550,000 new subscribers in North America (the US and Canada), well below the 1.7 million it gained the year before. “Our low membership growth in UCAN is probably due to our recent price changes and to US competitive launches,” said the company in a letter to shareholders published on 21 January.

“For about a decade, Netflix was more or less the only player in the market,” says Thomas Coudry. “Today, it must compete with newcomers. But not all platforms are direct competitors. Disney and Netflix, for example, have fairly complementary approaches to content, which encourages people to subscribe to several services. In the US, for example, households subscribe to an average of 1.7 SVOD services.”

Globally, SVOD customers currently subscribe to 1.43 streaming services on average. This figure will increase to 1.78 in 2024, according to Digital TV Research. This prediction leads several analysts to believe that there won’t be enough room for everyone. “At some point, the industry will undergo a concentration,” says Coudry.

Analyst Dan Rayburn from US firm Frost & Sullivan sees things differently: “The question is not whether customers will pay for several subscriptions. They simply won’t have the choice not to if they want content!” Rayburn believes that the offers are complementary, because they all host very different content. “I’m not saying that tomorrow everyone will subscribe to six platforms, but you’ll see that many households will soon have four or five subscriptions.”

Netflix has planned to spend \$17.3 billion on producing original series and films in 2020

Whatever happens, the battle for the top has begun. And Disney is bringing out the big guns. In addition to offering its large catalogue of content at an affordable price (\$6.99 per month, much lower than Netflix’s prices), the firm owned by Bob Iger is on the offensive. For the past several weeks, for example, Netflix ads have been banned on all of the group’s television channels (ABC, Disney Channel, ESPN, etc.).

“The price is important, but the key will be content,” says Coudry. According to BMO Capital Markets, Netflix has planned to spend \$17.3 billion on producing original series and films in 2020, compared to \$15.3 billion in 2019 – much more than its competitors (\$9 billion for Amazon and \$6 billion each for Disney+ and AppleTV+).

But Netflix has a major problem: the California company is losing big-name programmes. The iconic sitcom *Friends*, a runaway success since the 1990s and the second most-watched series on Netflix in 2019, left the platform in early January and moved to HBO Max. *The Office* and several successful NBCUniversal series will do the same in late 2020 to join Peacock, Comcast’s future platform.

A flightier audience

Netflix wasted no time in responding to these attacks. In August 2019, the showrunners of *Game of Thrones* – David Benioff and D.B. Weiss – left Disney, where they were preparing a new *Star Wars* trilogy, and joined Reed Hastings’ empire in a move that cost \$250 million according to

the US press. Before that, Shonda Rhimes, the showrunner behind the wildly successful *Grey’s Anatomy* and *Scandal*, as well as Ryan Murphy (*Glee*, *Nip Tuck*), also joined Netflix.

“The inflation on content production is enormous,” says Leegenhoek of UBP. Each platform needs to offer flagship content. Disney – which boasts a massive catalogue and strong franchises (*Star Wars*, *Marvel*, *Pixar*, *National Geographic*, etc.) – seems to have a significant advantage. Netflix, and Amazon to a lesser extent, want to produce their own blockbusters. But this strategy is very expensive.”

And this causes serious problems for TV fans: with so many platforms to choose from, viewers will have to make choices: *House of Dragons* (HBO Max) or *The Mandalorian* (Disney)? *The Witcher* (Netflix) or *Lord of the Rings* (Amazon Prime Video)? “Since SVOD subscriptions aren’t contract-based, the public will likely become more flighty,” adds Leegenhoek. “Each month, they could subscribe to a platform, binge-watch content, then move to the next platform the following month.” ▲

US STREAMING HEAVYWEIGHTS

Netflix

Basic: \$8.99, Standard: \$12.99, Premium: \$15.99

Amazon Prime Video

\$12.99

Access to the platform is included in every Amazon Prime subscription, which offers other advantages such as fast delivery.

Hulu

Basic: \$5.99, Premium: \$11.99

AppleTV+

\$4.99

Purchasing an iPhone, iPad, Mac or iPod Touch gives a free one-year subscription.

Disney+

\$6.99

Peacock

Price unknown at this time. Launches April 2020.

Quibi

Version with adverts: \$4.99. Without adverts: \$7.99. Launches 6 April 2020.

HBO Max

\$14.99. Launches May 2020.



Released on Netflix in 2019, *Friends* will hit HBO Max in 2020. This transfer will cost WarnerMedia \$425 million over five years, according to US media.

INTERVIEW

SSR ENTERS THE STREAMING BATTLE

The Swiss broadcasting corporation will launch a new on-demand content platform this autumn. SSR's Director General Gilles Marchand granted us an interview at the company's Bern headquarters.

BY LUDOVIC CHAPPEX, PHOTOS: OLIVIER VOGELSSANG



The SSR director general wants to raise the bar on VOD.

We find ourselves in the office of Gilles Marchand, around the large wooden conference table that also serves as a desk, where some of SSR's future is decided. In a corner of the room, two televisions are mounted high on the wall, both showing SSR channels. On Monday 27 January, tennis is playing with no sound. Rafael Nadal is sizing up Nick Kyrgios in the Melbourne night. "I brought this table with me from RTS," said the Lausanne native and former director of TSR (Télévision Suisse Romande) with a smile. Appointed Director General of SSR in 2017, he is now located in Bern,

on the 10th floor of the group's headquarters. Marchand is known for his sense of anticipation and his sharp knowledge of the media world in Switzerland and beyond. He describes the future of SSR, which is focused on streaming, and the digital challenges in the audio-visual landscape that are to come.

SSR will launch a large streaming platform in autumn 2020. What is the goal of the new service?

Viewers today are looking for more à la carte options and fewer traditional linear channels. With this project, we are meeting a strong demand from our audiences. It will be a big step

forward, because for the first time in the history of SSR, programmes will no longer be organised by linguistic regions but instead organised by subject. They will be offered in original languages with subtitles for all of Switzerland. We believe that we have a lot of content that all regions can enjoy.

What will the content be?

Primarily fiction and documentaries. These two genres lend themselves well to on-demand viewing and thematic grouping. For example, if you search for the word "pandemic" – a current news topic (ed. note: at the time of writing) – you would be

able to access reports from various language regions. We will also offer selected content from events with which we partner.

Viewers register for free to access the platform and will be able to choose the language of the interface so that we can suggest interesting content. The data collected will be secure and not sold. The goal is to use technology to serve public demand.

What about sporting events and news?

We will not include those on this platform. Linear broadcasting channels are perfect for this type

of content. But you will still be able to watch tennis on rts.ch, for example. All of our regional portals will continue to be free to access.

Will the new platform offer exclusive content?

The idea is more about offering another way to watch our productions. All content will be broadcast via our traditional linear channels and then made available for streaming on demand. Viewers will be able to access the catalogue in various ways: via the internet, applications, and even traditional televisions. We're currently talking with telecoms companies and everyone interested in carrying this offer.

In terms of producing fictional content, do you think the day will come when SSR could compete with the best Danish series?

That's the goal! There's also very high-quality television coming from Canada, Belgium and Israel. I think it's possible to aim for that level of content. But until now in Switzerland, the production volume was too low to gain enough expertise in the matter. By increasing investments in fiction, as well as systematic dubbing and subtitling, we will become more knowledgeable as we broadcast the same series to all regions of the country. >



Gilles Marchand
outside SSR's
headquarters
in Bern.

Could SSR gain international fame? How would you achieve that?

When we are minority co-producers of a series with French or German broadcasters, the series is never filmed in Switzerland, and the casting is determined by the country that provides the most financial support. So to make a name for ourselves internationally, we have to be able to produce content in Switzerland. That's also one of our goals: to showcase Switzerland in something other than the news. It's a type of "soft power" that we're trying to develop, which also corresponds to our international plans.

Will podcasts be included on this new platform?

It will primarily be a video platform. The user experience distinguishes between video and audio rather clearly. I'm not categorically rejecting a potential audio platform in the

future. But we already have quite a challenge with video, so it's hard to imagine a common entry point for all languages.

Within SSR, many digital innovations are coming from RTS. They include the show *Nouvo*, the Play RTS app and the new programme about video games that has just launched on Twitch, among many others. German Switzerland doesn't seem quite as open to experimentation. Why do you think that is?

You're right, Romandy is quite the pioneer. That's the case currently in the fields of artificial intelligence and archive management. In terms of AV, I think it comes down to location. Romandy channels are more internationally-focused because of their ties to the French-speaking world. That said, German-speaking Switzerland has also achieved plenty of innovation in recent years. It is very cut-

ting-edge when it comes to audio. In Italian Switzerland, RSI has a studio open to YouTubers.

Are listeners' consumption habits very different in German Switzerland compared to Romandy?

Sometimes. For example, it's interesting that Instagram is so powerful in German Switzerland and less so in Romandy. Conversely, Facebook remains very popular in Romandy, but is losing ground in German Switzerland. It is possible that cultural influences from France and Germany, respectively, are playing a role here.

Getting back to SSR platforms, what segment of your viewers watch your channels on your website?

It's increasing all the time. Our penetration rate via linear channels is decreasing, which is the case all over Europe, and on-demand viewing is on

the rise. This situation is problematic because our financing model is mixed – historically 75% of revenue is from royalties and 25% from commercial revenue. As it's illegal to run advertising on digital channels, we are losing revenue. So we are blocked on this point.

Does this situation seem unfair, given that most media also produce video and sound?

I'm not saying it isn't (laughs). This is actually a current topic. The bigger overall question is how will various national media coexist in a minuscule market that is under attack by various international players? Some publishers believed – maybe they see things a bit differently now – that SSR's digital development would make them lose even more money, so they shut down that possibility. We tell them: we're not your competition. The real danger is international platforms coming from the United States.

To compete with GAFA which have massive advertising revenue, have Swiss media outlets decided to bury the hatchet and work together?

I've been calling for cooperation like this for a long time. It would put us in a better position to defend Switzerland's media positioning. We're too small to tear each other down. By bringing together digital content creators from SSR and other publishers, we could attract more Swiss advertising.

But this doesn't seem like it's on your roadmap...

Publishers need to recognise that this is an attractive potential gain for them. That's not entirely the case yet.

Nevertheless, aren't there some technological projects that you could lead together? Or some potential shared goals?

Of course. For example, SSR is part of a Swiss digital group that includes

NZZ, Ringier, Tamedia and CH Media. The goal is to develop a single subscription system where users can access content from the various participants.

"Take the Disney catalogue, in my honest opinion in order to compete with such an avalanche, it's in your best interest to consolidate the best national content"

Another very concrete example: Swiss Radioplayer launched in 2018. This app is a hub for many Swiss public and private radio stations. It creates a critical mass – useful for convincing auto manufacturers to use our audio station as the default programme in their vehicles.

We are also partners in the Initiative for Media Innovation (IMI), a centre of excellence at EPFL that works with various publishers and universities, as well as RTS. We have several ongoing projects, particularly a very interesting project about algorithms that can track fake news. This innovation will be of interest to both print and AV media. It will be available to all partners.

Is SSR involved in any international digital projects?

TV5 Monde will develop a sizeable à la carte digital offer called TV5 Monde+, and we will be closely tied to that. This platform will host programmes for which the global rights are free. Canadian groups in particular are very involved in this project. In terms of heritage, it is a way to showcase the best Francophone content in an on-demand format.

What do you think of the Salto on-demand video service, including the French broadcasting groups TF1, M6 and France Télévisions, due to be launched this year?

I think that for national operators, whether public or private, it is in their best interest to band together to resist the advances of global catalogues. Take the Disney catalogue that's coming now, in my honest opinion in order to compete with such an avalanche, it's in your best interest to consolidate the very best national content.

In terms of increased competition between broadcasters, what do you think the future of sport will be at SSR? Will the Swiss public service broadcasters still show high-level competitions in five years?

It depends on the type of sport. Yes for the Olympic Games, the World Cup and very Swiss sports such as skiing. But it will be very difficult for the UEFA Champions League, for example. Now, there is an incredible bidding war to acquire TV rights, due to new players on the scene, including Swisscom.

In my view, the rights holders are wrong to think in the very short term. If people ever have to pay to access every single match, the audience will fall. Rights holders will then have a problem with their sponsors, who will complain about not reaching a big enough audience. ▴

"Our growth in podcasts is just phenomenal," Ek said in 2019. For Spotify's CEO, this format represents his platform's future.

TORU YAMAMAKA / AFP

PODCASTS... TO THE RESCUE?

Feeling cheated out of the spoils of the music industry, Spotify is looking to create original audio content. This booming industry is attracting many players.

BY BERTRAND BEAUTÉ

Break out the bubbly! Defying all expectations, in Q3 of 2019 Spotify generated a profit. In its 14 years of existence, this is only the second time that the global leader in online music has been in the black. But it's likely the celebrations won't last. The Swedish company, which will publish its results in February, expects to fall back into the red in the upcoming quarters.

"Spotify pays most of its revenue (ed. note: between 50% and 75% depending on the label) to music labels in the form of royalties," said Julien Leegenhoek, tech stocks analyst at Union Bancaire Privée. "And for Spotify this situation is not ideal in the slightest. It feels cheated

when it has to share its revenue." Indeed, while the music industry is happy, Spotify is unable to turn a profit, despite its 250 million monthly users (113 million of which have paid subscriptions) and an annual revenue of nearly €5.3 billion in 2018.

To reverse this trend, the global music streaming leader, ahead of Apple Music (60 million users) and Amazon Music (55 million), has no choice but to find other sources of revenue. How about producing music directly? That would mean war with major labels such as Universal, Sony and Warner, which are Spotify's main partners. Organising concerts maybe? The industry is dominated by giants Live Nation and Ticketmaster.

So instead of throwing itself into difficult battles, Spotify has decided to focus on a booming audio format: podcasts. A word combining pod (like iPod) and cast (from broadcast), podcasts are audio content that is either streamed or downloaded, which can be a documentary, fiction or news. Created in 2017, *The Daily* podcast from *The New York Times* has two million listeners per day.

According to a Deloitte study published in December 2019, this market is expected to grow 30% in 2020 to reach \$1.1 billion in revenue. So, it's a niche market, but a booming one. To break into the industry, Spotify announced in February 2019 that it was acquiring two American companies specialising in podcasts: Gimlet Media for \$230 million and Anchor for more than \$100 million. In March, it will acquire a third company, Parcast.

Created in 2014, Gimlet produces many podcasts, particularly the very popular audio thriller *Homecoming*, as does Parcast, which is also an audio content creator. Anchor develops pro-

duction and monetisation tools for podcast creators. With these acquisitions, Spotify now owns the entire value chain: production (Gimlet and Parcast), broadcasting (Spotify) and content monetisation (Anchor). And Spotify doesn't plan to stop there. According to *The Wall Street Journal*, Spotify also hopes to acquire The Ringer, an American sports podcast site.

Is this enough to keep the company in the black for an extended period of time? In a letter to shareholders sent in October 2019, Spotify wrote that podcasts will convert free users into paid subscribers at a rate that is "almost too good to be true". Nevertheless, the company, which now has more than 500,000 podcasts available, faces a daunting rival in Apple.

According to a Deloitte study, this market is expected to grow 30% in 2020

"We are really expanding our mission beyond music to everything audio," explained Spotify co-founder and CEO Daniel Ek in an interview with CNBC. A strategy endorsed by Leegenhoek: "Spotify aims to become a kind of Netflix for audio, in that it will produce its own content just like Netflix creates its own films and TV series. As a result, Spotify won't be required to pay out the majority of its revenue in royalties." According to Ek, podcasts could eventually make up 20% of total listening time on Spotify.

Until now, Apple settled for simply hosting and distributing audio content on its platform Apple Podcasts. However, according to Bloomberg, the Cupertino company is currently working to create podcasts tied to its original series on Apple TV+.

The goal is to create a virtuous circle between video and audio. Since June 2018, Google has also had its own application for podcasts, but for the time being, the Mountain View company only hosts content and doesn't create it. ▲

AUDIOBOOKS GAIN CREDIBILITY

"Streaming dominated this year's fair." In the closing speech for the 71st Frankfurt Book Fair, the fair's CEO Juergen Boos said it himself: audiobooks are gaining more and more ground on printed books, thanks to smartphone streaming. In the United States, audiobooks already make up nearly 10% of the publishing industry, and according to a study from consulting firm Deloitte, the global audiobook market is expected to grow by 25% in 2020, reaching \$3.5 billion. The leading company in the industry, Audible, was acquired by Amazon in 2008. Scribd, often described as "Netflix for books", offers an alternative to the e-commerce giant. There are also a few audiobooks available on music streaming platforms Spotify and Deezer.

VIDEO GAMES: THE FINAL HOLDOUT

After music and TV series, video gaming is the last big industry to make the switch to streaming. But there are technical obstacles to overcome.

BY LUDOVIC CHAPPEX

In November, Google launched Stadia, its on-demand video game platform that streams 22 titles, including *Assassin's Creed Odyssey*.

“Google Stadia is dead on arrival.” So said David Cole, founder and CEO of DFC Intelligence, a well-known analytics firm in the video game industry. His comment, reported by the site GameDaily.biz, is a bitter summary of the dissatisfaction gamers felt about Google’s new game streaming platform, launched in November 2019.

Before launching its platform, Google did set the bar high, promising that Stadia would provide a gaming experience comparable to consoles such as the Microsoft Xbox One and Sony PlayStation 4. In theory, gamers would be able to play the latest blockbusters in 4K and at 60 frames per second, in ideal conditions as long as they had sufficient internet bandwidth.

The advantage of Stadia was that gamers only needed a controller (provided) and a sufficient internet connection to use the service. Actual game play (real-time delivery of graphics, sounds, etc.) is handled entirely remotely, via powerful servers located far from the end user. However, unlike streaming a video on demand, such as a TV show, with games, use has an impact on the data flow: every time a player moves the controller, a signal is transmitted via the internet which then initiates the corresponding action on screen. This is the root of the problem: latency. Every gamer’s sworn enemy, these few dozen milliseconds of waiting for the screen to catch up are seen as prohibitive for experienced players, and the latency becomes even more intolerable during competitive games with multiple players.

“We are very sceptical. Cloud gaming is still far from being comparable to traditional games.”

Uwe Neumann, analyst at Credit Suisse

Uwe Neumann, a technology and telecoms analyst at Credit Suisse, agrees that Stadia is no real game-changer for the industry, at least in the short term: “We are very sceptical. This technology is still far from being comparable to the traditional downloadable game. I don’t expect us to see performance improve until at least 2021–2022.” Other industry experts agree.

But in fairness, while for the reasons mentioned above, as well as the

lack of original content, Stadia didn’t convince serious gamers to immediately sell their PlayStation, Xbox or gaming PC, it is still the most accomplished and accessible cloud gaming offer currently on the market (right now, Stadia is available in 14 countries, including France and Germany, but not yet in Switzerland). Overall, people who tested the service in good conditions (i.e. with fibre optic broadband) recognised the steadiness, graphic quality and fluidity of the games. However, these qualities are lost as soon as you connect to Wi-Fi and the latency becomes catastrophic, ironic for a company that was aiming to move away from fixed hardware and offer a nomadic multi-platform experience. This is why many of the industry players are eagerly awaiting 5G, which significantly reduces latency.

This is the paradox at play with Stadia: its goal was to convince serious gamers, but the current technological limitations of cloud gaming seem to cater to casual gamers instead. French start-up Shadow and a few other pioneers that also decided to target gamers are encountering the same challenges.

But the game is not over yet. The \$9.90 monthly subscription for Stadia Pro gives users access to the entire catalogue (22 games on its launch) at a reasonable price. This could tempt people who don’t yet have a console or the latest PC at home, especially since a free version, with the possibility of buying games individually, will launch in 2020. In January, Google also entered into a partnership with UK operator BT, which now includes Stadia with its internet packages. This new model could be replicated elsewhere.

While the spotlight in recent months has been on Stadia, Google remains far from having free reign over the industry. Even though it is still a growing market, cloud gaming already generates half a billion dollars ▶

in revenue globally, and according to various studies, revenue could exceed \$4 billion by 2024. It is certainly far from the \$200 billion in revenue that was expected for the entire video game industry by the same date, but that doesn't stop industry heavyweights from actively preparing.

Paradoxically, Sony was one of the first to offer an operational streaming platform. Since 2015, PlayStation Now has allowed PlayStation 4 and PC owners to stream hundreds of games from the PS2, PS3 and PS4 catalogues for €9.99 per month. The service has more than one million subscribers. It is surprising because the Japanese giant, which is preparing PlayStation 5 for release end of this year, doesn't appear to truly buy in to the cloud gaming boom in the medium term. Neumann said: "We talked to Sony recently. They said that streaming

video games will not be widespread before 2025." But it can't hurt to experiment beforehand, right?

Cloud gaming already generates half a billion dollars in revenue globally

This is most likely the view of Microsoft, which last year officially unveiled its XCloud project, which will allow players to stream Xbox games. The launch is expected for 2020. Nvidia is preparing its GeForce Now platform, which is currently in the beta stage, and game publisher Electronic Arts has also announced

its own service. Nintendo, as usual, prefers to wait.

Perhaps unexpectedly, US tech giants are also throwing their hats into the ring. Almost all of them have their own projects, with various degrees of completion. Apple launched its Apple Arcade platform last year, which gives users access to play around 100 games via a subscription service. In this case, Apple is clearly targeting casual gamers, as the offer is designed for mobile games on iOS. Rumour has it that Amazon could also join the fun in 2020. The owner of Twitch (see p. 49) would then be able to build an attractive ecosystem for players. Finally, Facebook has also taken a step towards cloud gaming, acquiring Spain-based industry pioneer PlayGiga in late December for €70 million. The Mark Zuckerberg company also owns Oculus, which sells virtual reality headsets. ▲



TWITCH AND THE FUTURE OF TV

Once confined to gaming, live video streaming platforms are now for all types of content.

BY BERTRAND BEAUTÉ

The news came as a surprise. On 10 October 2019, Donald Trump launched his own Twitch channel.

Already very active on Twitter, the US president wants to make the video platform a driving force for his campaign. And yet, on multiple occasions, Donald Trump has accused video games of being responsible for mass killings in America. And Twitch is none other than the preferred platform of gamers...

Founded in 2011, the company provides a forum where gamers can share their game-playing with other viewers. But unlike YouTubers, who upload pre-recorded videos, Twitch users stream their videos live. "Twitch's strength is not just live streaming, it's interactivity," says Romain Tixier, president of Esport Strategy and co-founder of Yokotu. "Viewers can chat with players and have an impact on the games they watch by commenting and giving advice to the streamers in real time."

The concept quickly became a big hit: three years after its launch, Twitch had one million users attracting 45 million unique viewers a month. Those impressive figures led Amazon to spend \$970 million to acquire the company in 2014. A number of competitors have

emerged in the wake of Twitch's success: Google launched YouTube Gaming in 2015, and Microsoft followed with Mixer in 2016. But they are no match for the original. In 2018, over 10 billion hours were viewed on Twitch (75% market share), with YouTube Gaming (17%), Facebook Gaming (4%) and Mixer (3%) trailing behind.

In August last year, Mixer made a move to get back in the game by recruiting Twitch's biggest streamer, "Ninja", an expert on the *Fortnite* game with 14 million followers. Google has adopted the same strategy and recruited two top streamers from Twitch in 2019: "CouRage" and "Lachlan".

"So far, these transfers haven't changed the balance of power because gamers are highly attached to the platform," says Tixier. "The important thing for Microsoft, though, is not the immediate audience, but rather making a name for itself. Mixer will be integrated into the next version of Xbox. It will be important for players to know what it is." Mixer's audience will likely expand in step with sales of the console.

But Twitch has a plan. The company has responded by branching out

beyond gaming into other types of programmes, such as gaming talk shows, performances and live dining shows. Now you can find anything on Twitch. Even atrocities such as the German synagogue shooting, livestreamed last October.

But it's working, and now Google is following suit. In May, the Mountain View company closed YouTube Gaming to integrate it into YouTube. "The idea is to develop live streaming in all areas, it's a practice that is really going to take off," says Tixier of Yokotu. He sees this type of direct streaming as the future of TV: interactive television where all viewers will be able to comment on shows in real time and influence how the shows play out.

The success of "Bandersnatch", a special episode in Netflix's *Black Mirror* series, is proof that there is an interest in this type of format. In that episode, viewers could decide what the hero did next by answering questions like in a choose-your-own-adventure book. After that test, Netflix launched an interactive series called *You vs. Wild* in April 2019, where viewers set off on adventures with the famous survivalist Bear Grylls. His survival of the expedition depends on their choices. ▲



FRANCK FIFE / AFP

On January 24, an NBA game was held in Paris. It was a first, and the game, which pitted the Charlotte Hornets against the Milwaukee Bucks, was broadcast live on the NBA TV streaming channel.

SPORT: THE NEW EL DORADO FOR STREAMING SERVICES

After revolutionising the way the world watches films and television series, streaming platforms are increasingly interested in livestreaming events, particularly sports competitions.

BY BERTRAND BEAUTÉ

“Never, never, never.” It’s a firm no from Reed Hastings. “We will not stream live content, we will not air sports competitions,” said the Netflix CEO in 2018. While Hastings hasn’t gone back on his word, his competitors are ready to fill the gap left by the global leader in video streaming.

For example, Amazon Prime Video has streamed American football (NFL) matches live on its platform since 2017 and the e-commerce giant also acquired the rights to broadcast sports such as tennis (the French Open, as well as other ATP tournaments), football (20 Premier League matches per year) and golf.

“Amazon will greatly increase its sports broadcasts”

Romain Tixier, co-founder of Yokotu, a digital marketing firm

“Amazon will greatly increase its sports broadcasts,” predicts Romain Tixier, co-founder of Yokotu, a digital marketing firm in London. “Other market players, such as YouTube and Twitter, are also interested, because sport is the content that draws in the biggest audiences.” In 2019, eight of the 10 largest audiences for US television were for sporting events. Specialised platforms have also sprung up, such as the UK-based DAZN, which hopes to be the “Netflix of sport”.

But the video-on-demand pure players will have to compete with the giants. In late July 2019, Randall Stephenson, CEO of telecoms operator AT&T, announced that live sport would be an “important element” of the HBO Max platform that will be available this spring. According to the US media, HBO Max will broadcast American college basketball matches, highly popular in the US.

PIRATING MAKES A COMEBACK

An NBA game? A Champions League match? The Wimbledon final? In just a few clicks, you can illegally watch any sporting event you want for free on the internet. And it’s not limited to sport... TV series and films are also pirated. For example, just a few days after it launched on Disney+, *The Mandalorian* was already available on pirating sites.

While the extent of pirating is difficult to determine, the latest report by Sandvine, a Canadian networks expert, estimates that video pirating has increased during the last two years. This is due to the fragmented offer. Unlike the music industry, where services such as Spotify and Apple Music allow users to listen to all existing music, the video-on-demand and sports industries are quite divided. A viewer that wants to watch both *Money Heist* (Netflix) and *The Morning Show* (Apple TV+) must either pay for two subscriptions or stream illegally. Cam Cullen, vice president of Sandvine, said to *Les Echos*: “Pirating will increase in 2020 with the arrival of Disney+, Peacock and other services.”

The Disney group, which is the parent company of channels ESPN and ABC, holds a massive portfolio of sports rights around the world, and the entertainment empire doesn’t want to miss out on sports streaming. The group didn’t have to think twice before spending \$2.6 billion in 2017 to take a majority stake in the company BAMTech, a specialist in the technology that broadcasts live sports events on the internet. Disney has since launched ESPN+, the streaming version of its ESPN network, and in November 2019 began offering a subscription that includes Disney+, ESPN+ and Hulu for \$12.99 per month, which is the standard subscription price for Netflix.

And thus the streaming war continues. However, Thomas Coudry, analyst at investment bank Bryan, Garnier & Co., remains cautious: “For video-on-demand experts, entering the sports market is a real challenge. Live broadcasting isn’t part of their DNA and the world of sports rights is a very fragmented industry that is extremely expensive. As a result, it is very difficult to turn a profit with this

type of content. For Amazon, I believe sport is a marketing ploy, a loss leader designed to attract new clients to other Amazon services.”

For major players such as Disney and WarnerMedia, which owns HBO Max, the situation is slightly different. These groups, which own traditional television channels dedicated to sport, don’t want to go all in on streaming, to avoid losing their audience. However, at the same time, they are developing their streaming offers in order to stave off the competition.

This competition could come from the sports associations themselves. Last November, the NBA basketball league in the US announced it was launching its own subscription streaming channel, NBA TV, for \$6.99 per month, or \$59.99 per year. A first for a major sports league, it could inspire others to do the same. According to the *Financial Times*, UEFA is researching the possibility of directly broadcasting its flagship competition, the Champions League, via OTT on its UEFA TV platform. ▀

The kings of Streaming

The streaming market is dominated by a handful of American giants. But a few operators, mostly from Asia, stand out. We take a closer look.

BY BERTRAND BEAUTÉ, LUDOVIC CHAPPEX AND GRÉGOIRE NICOLET

Netflix, the entertainment multinational

Champagne and galas. The stars were out on 17 January for the inauguration of Netflix's new Paris offices. CEO Reed Hastings himself came to the French capital to pose alongside Paris mayor Anne Hidalgo and French culture minister Franck Riester. Why all the fuss from Netflix's boss for what boils down to a small subsidiary? Because growth outside North America has become imperative for the video-on-demand (VOD) leader. The launch of Disney+ has impacted the company's bottom line. In Q4 2019, Netflix only brought in 550,000 new subscribers in the United States and Canada, well below the 1.7 million customers it drew the year before.

And so the company is seeking solace abroad. At the end of 2019, Netflix surpassed the 100 million subscribers mark for the first time outside its home territory, compared with 67 million in North America. That represents nearly 28 million more customers in one year, of which 14 million are from the Europe, Middle East and Africa region – figures that exceeded analysts' forecasts by far. One of the reasons for its success is that Netflix produces content in every country

where it operates, such as *La Casa de Papel* in Spain, *Dark* in Germany, *Atelier* in Japan, 3% in Brazil and *Sacred Games* in India. To move forward with this strategy, in November 2019, Netflix announced a production agreement with the Korean company CJ ENM. In its letter to shareholders published on 21 January, Netflix pointed out, "local originals were the most popular titles in many countries, including India, Korea, Japan, Turkey, Thailand, Sweden and the UK."

Even though they plan to hassle Netflix the world over, Disney+ and Apple TV+ produce little content outside the United States. The only rival to do so is Amazon, but to a much lesser extent. And despite having more subscribers abroad than in the United States, Netflix's US base still accounts for the largest share of its revenue.

On average, an American customer makes the company \$151 per year, compared with \$124 in Europe. Most analysts, such as Bernie McTernan from Rosenblatt Securities, recommend purchasing shares, although some fear the growing competition.



American actor Gaten Matarazzo stars as Dustin in Netflix's flagship series *Stranger Things*. The fourth season will air in late 2020 or early 2021.

FOUNDED 1997
HEADQUARTERS LOS GATOS (US)
EMPLOYEES 6,700
REVENUE 2019 \$20.1 BN
CAPITALISATION \$150.3 BN
NFLX

AND ALSO...

SPOTIFY

THE UNDISPUTED LEADER

With 113 million paid subscribers, surging 31% in the past year, Spotify is hands down the world leader in music streaming, ahead of Apple Music (60 million users) and Amazon Music (55 million). However, unlike its colleagues, the Swedish company cannot hide its losses behind other business activities. Although the company has significantly improved its profitability, it still lost €78 million in 2018.

FOUNDED: 2006
HEADQUARTERS: STOCKHOLM (SE)
EMPLOYEES: 3,500
REVENUE 2018: € 5.259 BN
CAPITALISATION: \$25 BN
SPOT

THE TRADE DESK

THE ADVERTISING SPECIALIST

'Through the company's platform, advertising buyers can manage their digital ad campaigns across a wide range of devices. Analysts expect The Trade Desk to benefit from the significant growth on the VOD market.

FOUNDED: 2009
HEADQUARTERS: VENTURA (US)
EMPLOYEES: 1,200
REVENUE 2018: \$477 M
CAPITALISATION: \$12.3 BN
TTD

TENCENT MUSIC

THE CHINESE BEHEMOTH

Listed in New York since 2018, Tencent Music owns the three largest Chinese music streaming services: QQ Music, Kugou and Kuwo. True, QQ Music's user base is developing, but Tencent Music's growth is mainly driven by its social entertainment services, including its karaoke platform WeSing, and its Kugou Live and Kuwo Live apps where users can watch livestreams of concerts and TV shows.

FOUNDED: 2016
HEADQUARTERS: SHENZHEN (CN)
EMPLOYEES: 2,400
REVENUE 2018: \$2.76 BN
CAPITALISATION: \$20.85 BN
TME

Apple, catching up fast

Apple's announcement in June 2019 that it was killing iTunes sent a strong message: downloading is a thing of the past – make way for streaming! Apple will replace its famous software with three apps: Apple Music, Apple TV+ and Apple Podcasts. iTunes forever changed the music industry when it hit the market in 2001. But the advent of streaming – with the creation of services such as Pandora in 2000, Spotify in 2006 and Deezer in 2007 – put an end to the tech giant's position as supreme leader. Since its launch in 2015, Apple Music has risen to second place in the global streaming market, with 50 million users. But that is still far behind the undisputed leader, Spotify, and its 113 million paid subscribers.

In subscription video-on-demand (SVOD), Apple faces the same situation. Released

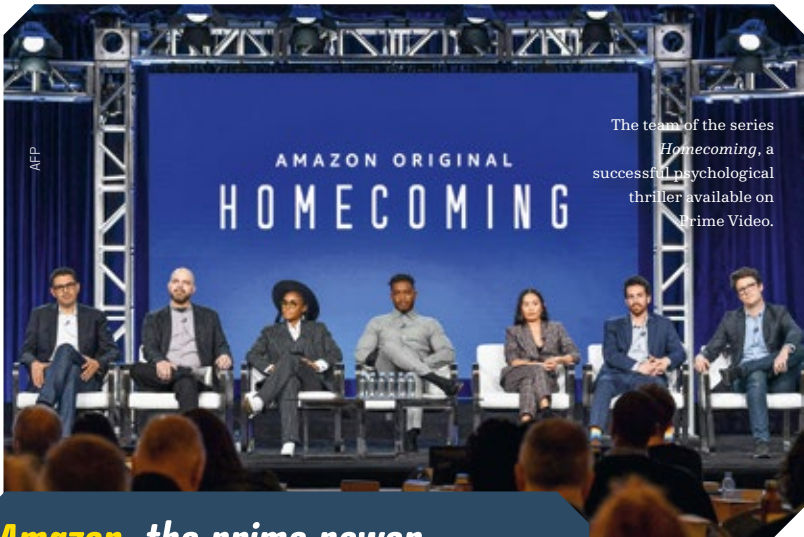
long after Prime Video and Netflix, Apple TV+ is behind the game. However, when it comes to podcasts, it is a real pioneer. iTunes added a special tab just for podcasts back in 2005. But the California-based company rested on its laurels, happy merely distributing content. Today, Apple hosts 550,000 podcasts, retaining its leading position, but Spotify is nipping at its heels with 500,000 podcasts.

That being said, Apple has an advantage over the market's pure players: streaming is a non-core business activity that mainly aims to lock customers into its ecosystem. The Apple TV+ platform is almost free – buyers of iPhones, iPads and other Mac products receive free access. Most analysts recommend buying shares.

FOUNDED	1976
HEADQUARTERS	CUPERTINO (US)
EMPLOYEES	137,000
REVENUE 2018	\$265.6 BN
CAPITALISATION	\$1,393 BN
	AAPL



On the set of the *See* series, one of the original content available on Apple TV since the launch of the platform in November 2019.



The team of the series *Homecoming*, a successful psychological thriller available on Prime Video.

Amazon, the prime power

Patrick Stewart no longer wanted to don the costume of Jean-Luc Picard or set foot back aboard the Enterprise 26 years after the end of *Star Trek: The Next Generation*. But Amazon must have had some powerful arguments, because the British actor is back in the series *Star Trek Picard*, with a premiere on Prime Video on 24 January. Just like that, the online retail leader has coasted to the top of the streaming game within the space of a few years.

How? Amazon Prime. Launched in the United States in 2005, this service (not available in Switzerland) first offered fast delivery of items purchased on Amazon for an annual membership fee. Charging users \$119 per year in the United States, the programme now includes other benefits. All members enjoy free access to Prime Video and Prime Music. In 2018, Prime surpassed the symbolic threshold of 100 million subscribers worldwide. In his letter to shareholders, Amazon boss Jeff Bezos stated that the series and films available on Prime Video are the main draw and the reason most people join Amazon Prime, and the content also keeps online retail customers loyal.

Since 2018, Prime members have also been able to download video games for free via Twitch Prime. This service could switch to streaming in the near future, as there have been murmurs that Amazon is planning to launch a cloud gaming platform in 2020. Analysts at Jefferies recommend buying shares, setting a price target of \$2,300, compared to the current price of \$1,850.

FOUNDED	1994
HEADQUARTERS	SEATTLE (US)
EMPLOYEES	750,000
REVENUE 2018	\$232.9 BN
CAPITALISATION	\$906 BN
	AMZN

RAKUTEN

THE AMAZON LOOKALIKE

Known in Europe for buying PriceMinister in 2010, the Japanese e-commerce giant Rakuten is following in Amazon's footsteps and is entering the world of streaming. Its video-on-demand service Viki, focused on Asian content, is popular with young people. In October 2019, the group launched Rakuten TV in Europe, a free, ad-supported video-on-demand (AVOD) service.

FOUNDED:	1997
HEADQUARTERS:	TOKYO (JP)
EMPLOYEES:	17,214
REVENUE 2018:	\$10.117 BN
CAPITALISATION:	\$10.86 BN
	4755

IHEARTMEDIA

RADIO STREAMING

America's radio giant iHeartMedia is going through a rough patch. The company nearly went bankrupt in 2018 before picking itself up slightly. Its streaming platform, iHeartRadio, compiles content from the 850 radio stations owned by the group along with hundreds of others from a variety of media sources.

FOUNDED:	1972
HEADQUARTERS:	SAN ANTONIO (US)
EMPLOYEES:	18,300
REVENUE 2018:	\$6.33 BN
CAPITALISATION:	\$1.17 BN
	IHRT

WWE

THE ONLINE WRESTLER

World Wrestling Entertainment specialises in organising entertainment events, primarily in wrestling. Now WWE has its own streaming service, WWE Network. However, the number of subscribers to the platform fell in 2019, as did the group's share.

FOUNDED:	1952
HEADQUARTERS:	STAMFORD (US)
EMPLOYEES:	800
REVENUE 2018:	\$930.2 M
CAPITALISATION:	\$4.94 BN
	WWE



Roku's course has more than doubled in one year.

FOUNDED
2002

HEADQUARTERS
LOS GATOS (US)

EMPLOYEES
1,100

REVENUE
2018
\$743 M

CAPITALISATION
\$14.9 BN

ROKU

Roku, the face of new TV

Still unknown in Europe, Roku has made a place for itself in the United States in an industry normally dominated by giants such as Google and Apple. What does it do? Its connected box lets users watch a wide selection of web content on a television set. Basically, through its partnerships with streaming operators such as Netflix and Hulu, the Roku system makes switching from one service to another almost as easy as changing the channel.

With all the SVOD platforms on the market, analysts expect that consumers will increasingly have several subscriptions going at the same time. And Roku would benefit from that. The majority of analysts recommend buying shares, forecasting revenue growth from \$743 million in 2018 to \$1.6 billion in 2020.

Disney, the ogre of the entertainment sector

"Disney is an amazing company... We admire them." A good sport, Reed Hastings did not hide his admiration when asked about his new competitor Disney+, launched in November 2019. "I'll subscribe, they've got great shows," the Netflix boss even said. However, Disney could actually pose a threat to the leader of SVOD.

We often tend to forget it, but Mickey's parent company is no novice when it comes to streaming. As owner of Hulu, ESPN+ and FX+, the group already has a strong position in the United States. The launch of Disney+, the new star in the empire, expands this offer with a vast catalogue of all the franchises from the Disney galaxy: Marvel, Pixel, Star Wars, National Geographic and all the Walt Disney productions since the studio was created in 1923. And all this for the ultra-competitive price of \$6.99 per month in the United States, compared with \$12.99 for

the standard Netflix subscription. With that positioning, Disney+ appears to be some sort of ogre for Netflix and all future operators such as HBO Max and Peacock. "Obviously there will be a lot of players out there," Clark Spencer, president of Walt Disney Animation Studios, told AFP, "but I think for us having that depth of that library and the storytelling talents that sit within the studio, it's really going to be what sets us apart."

Disney is targeting 65 to 90 million subscribers to its platform worldwide within the next five years. Analysts, who recommend buying shares, believe Disney will beat that goal. Bernie McTernan from Rosenblatt Securities believes that the company will have more than 35 million subscribers by September of this year. Digital TV Research expects Disney+ to have 100 million subscribers by 2025, compared with 236 million for Netflix.

FOUNDED
1923

HEADQUARTERS
BURBANK (US)

EMPLOYEES
200,000

REVENUE
2019
\$69.6 BN

CAPITALISATION
\$260 BN

DIS



Disney has an impressive catalogue, with all the brand's franchises. Here, the animated film The Incredibles, produced by Pixar.

IQIYI

THE CHINESE YOUTUBE

Founded by China's leading internet search engine Baidu, iQiyi is one of the world's largest video streaming websites with over 500 million active monthly users. The company's IPO on the Nasdaq raised \$2.25 billion in 2018.

FOUNDED: 2010

HEADQUARTERS: BEIJING (CN)

EMPLOYEES: 8,600

REVENUE 2018: \$3.6 BN

CAPITALISATION: \$16.36 BN

IQ

SIRIUS XM

THE US WEB RADIO STATION

Who remembers Pandora? When the platform launched back in 2000, it was a pioneer in music streaming with its web radio service that adapted to listeners' music tastes. But Spotify drove Pandora into the red. In September 2018, Sirius, the US satellite radio leader, decided to buy the company for \$3.5 billion in a bid to convert to streaming.

FOUNDED: 2008

HEADQUARTERS: NEW YORK (US)

EMPLOYEES: 2,500

REVENUE 2018: \$5.8 BN

CAPITALISATION: \$31.54 BN

SIRI

COMCAST

THE EUROPEAN DREAM

A latecomer to streaming, with its SVOD Peacock service scheduled for release in the spring, Comcast dreams of becoming a Netflix-style international success story. In 2018, the group bought Sky UK, the British telecommunications operator, to strengthen its position on both sides of the Atlantic.

FOUNDED: 1963

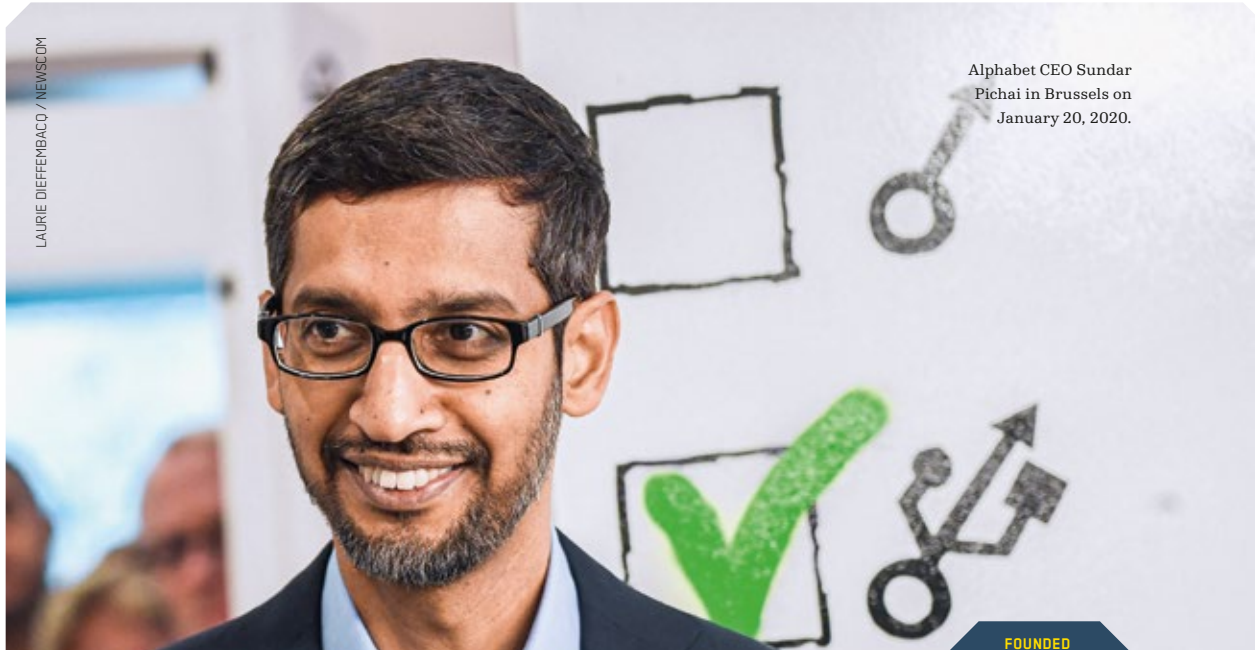
HEADQUARTERS: PHILADELPHIA (US)

EMPLOYEES: 184,000

REVENUE 2018: \$94.5 BN

CAPITALISATION: 200.35 BN

CMCSA



Alphabet CEO Sundar Pichai in Brussels on January 20, 2020.

Alphabet, the thrill of cloud gaming

Google isn't exactly a novice when it comes to streaming. The Mountain View company, lest we forget, purchased YouTube back in 2006. The ubiquitous video hosting site boasts incredible statistics: billions of hours of video watched daily around the world. According to a Statista study, YouTube made up 37% of worldwide internet traffic on mobile devices in March 2019 – total domination. We also can't forget Google Play, another flagship product, that also contains lots of content (films, TV series, music, books, etc.).

But a much less popular Google platform was making headlines recently. The US group is suffering blowback from its failed streaming video game service Stadia (see also p. 46) that launched in 14 countries in November 2019. Google is not currently providing an official number of subscribers, but it seems quite low compared to the number of subscribers for other industry giants, such as Sony and Microsoft, when they launch a new console. On paper, the project does seem promising. For €9.99 per month, gamers can stream 22 of the latest popular

games (Red Dead Redemption 2, Destiny 2, NBA 2K, etc.). Included in the Founder's Edition pack: a controller and a small, round Chromecast dongle that plugs into your TV's USB port.

But the platform has been under fire since it launched. The system isn't as responsive as expected, especially when using a WiFi connection, and many users complain of latency times. Google announced that it would eventually expand its offer to more than 120 games, without providing much further detail.

If the technical difficulties can be overcome, video game streaming could result in some fascinating opportunities for Google. The behavioural data gathered on Stadia users could feed into Google's main revenue stream: advertising. Online gaming could give Google a better understanding of community spirit and it could make up for lost time on social networks – Google+ never having proved able to compete with Twitter and Facebook.

FOUNDED	2015
HEADQUARTERS	MOUNTAIN VIEW (US)
EMPLOYEES	98,771
REVENUE	2019 \$161 BN
CAPITALISATION	\$1,007 BN
	GOOGL

RealNetworks, rebirth of the inventor

An industrial saga for the internet era. Here's the short version of the RealNetworks story – let's step back in time. In 1994, a former Microsoft employee, Rob Glaser, founded a startup that made software. A year later, the company launched its RealAudio solution, considered the foundation stone of streaming. In 2001, when Netflix still only rented DVDs, the company introduced a paid subscription video service, RealOne. The subscription unlocked access to a library of premium content provided by ABC News and CNN. Then in 2003 came the launch of Rhapsody – the first subscription music streaming service in the United States – with a library of 500,000 songs through license agreements with music industry heavyweights. But paid streaming services were only in their infancy in those days, and the company was hit hard by the development of YouTube (Google), iTunes (Apple) and Windows Media Player (Microsoft). RealNetworks then spent over a decade wandering the desert.

But in 2012, its subsidiary Rhapsody bought music streaming site Napster. Instead of taking on Spotify, Rhapsody refocused Napster on selling its technology under a white label. Its infrastructure became the base for streaming services such as iHeartRadio (see p. 55). That strategic move turned out to be a good one. Rhapsody has been turning a profit every quarter since 2018. Does that mean RealNetworks, which owns 84% of Rhapsody, should be revived? The markets aren't there yet. The company's capitalisation half melted away in 2019 to \$55 million, down from nearly \$3 billion when the internet bubble was at its biggest.

FOUNDED	1994
HEADQUARTERS	SEATTLE (US)
EMPLOYEES	534
REVENUE	2018 \$69.5 M
CAPITALISATION	\$55.3 M
	RNWK



Rob Glaser, founder and CEO of RealNetworks

VIACOMCBS

THE NEW GIANT

In December 2019, the conglomerate Viacom and the network CBS combined their strengths to become ViacomCBS. According to the Swiss bank UBS, this merger will enable the group's two VOD services (CBS All Access and Pluto TV) to rival Netflix and Disney, thanks to the \$13 billion that the group could spend on creating content, compared with the \$15 billion spent by Netflix in 2019. Moreover, ViacomCBS has an enormous library of 140,000 shows including *CSI*, *Criminal Minds* and *The Big Bang Theory*.

FOUNDED:	2019
HEADQUARTERS:	NEW YORK (US)
EMPLOYEES:	NOT AVAILABLE
REVENUE 2018:	NOT AVAILABLE
CAPITALISATION:	\$9.87 BN
	VIAC

NAVER

THE KOREAN GOOGLE

In Korea, no one reads comics on paper any more – they use their smartphones. The search engine Naver, hailed as the Google of South Korea, is a leading provider of these webtoons. The company also has an SVOD service called Naver TV Cast.

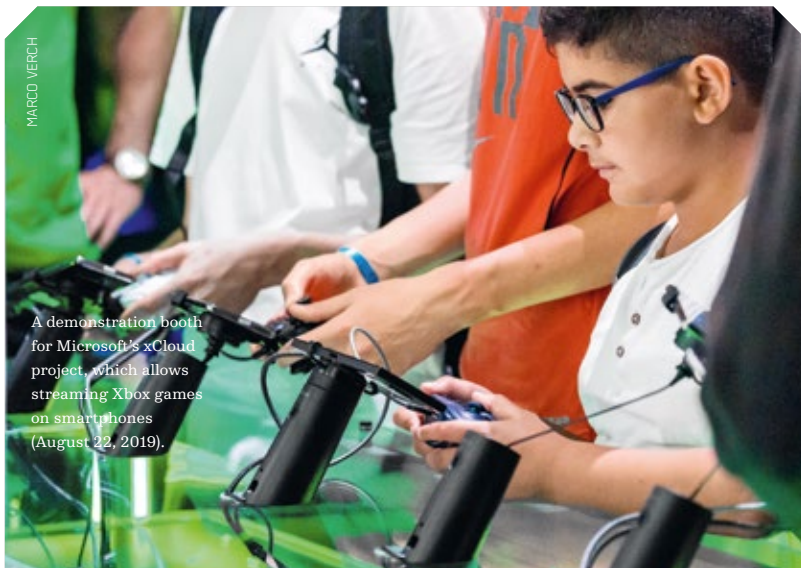
FOUNDED:	1999
HEADQUARTERS:	SEONGNAM (KR)
EMPLOYEES:	2,800
REVENUE 2018:	\$4.75 BN
CAPITALISATION:	\$22.77 BN
	035420

FACEBOOK

THE PLAYER IN BLUE

In December 2019, Facebook announced that it had acquired the Spanish cloud gaming platform PlayGiga. Although nothing suggests that this acquisition foreshadows a foray into video game streaming under the network's blue banner, such a move would make sense. Mark Zuckerberg's creation already has Facebook Gaming, but the livestreaming channel is struggling to carve out a slice of the market largely dominated by Twitch (see p. 49).

FOUNDED:	2004
HEADQUARTERS:	MENLO PARK (US)
EMPLOYEES:	43,000
REVENUE 2018:	\$55.84 BN
CAPITALISATION:	\$612.75 BN
	FB



Microsoft, streaming for gamers

Well established in the video game world for nearly 20 years (the first Xbox came out in 2001...), Microsoft is preparing to update its offer with new options in the cloud. Last year, the Redmond group launched a beta version of its streaming platform called xCloud, which is somewhat similar to Google's Stadia. But the notable difference is that Microsoft gamers will be able to access the entire catalogue of games, which is quite expansive. The service is expected to be available sometime this year on PC, Android and iOS.

With this launch, Microsoft has the chance to build an attractive ecosystem around streaming games. The US company owns the Mixer platform, a competitor of Twitch, where users can broadcast their games live. But Mixer stands out because users can actually interact with the platform; watchers can participate in the live feed by taking over control from the original player. But as it stands now, Mixer makes up less than 5% of all content watched, compared to 70% for Twitch, according to data from Stream Hatchet.

To launch these new services, Microsoft can make use of Azure, its powerful in-house infrastructure in cloud computing. xCloud runs off of 54 Microsoft data centres spread across 140 countries.

FOUNDED
1975

HEADQUARTERS
REDMOND (US)

EMPLOYEES
148,465

REVENUE
2019
\$125.8 BN

CAPITALISATION
\$1,284 BN

— MSFT

DISCOVERY

A FULL DOSE OF NATURE

In April 2019, the Discovery Group, known for its Discovery Channel and Animal Planet networks, bought the VOD rights on content from the BBC's Natural History division (except in the United Kingdom, Ireland and China). This deal will enable Discovery to launch its SVOD service in 2020, focusing on the niche market of natural history, travel and science.

FOUNDED: 1985
HEADQUARTERS: NEW YORK (US)
EMPLOYEES: 9,000
REVENUE 2018: \$10.533 BN
CAPITALISATION: \$15.46 BN
— DISCA

NVIDIA

THE GAMING PRO

Nvidia's streaming video game platform, dubbed GeForce NOW, has been available in beta version for several years. This experimentation phase is expected to lead to a market offering in 2020. The service will be available via Windows, Mac and Android smartphones. Users will be able to play hundreds of games, accessible via their personal libraries.

FOUNDED: 1993
HEADQUARTERS: SANTA CLARA (US)
EMPLOYEES: 13,277
REVENUE 2018: \$11.716 BN
CAPITALISATION: \$147 BN
— NVDA

SONY

THE PIONEER OF CLOUD GAMING

The inventor of PlayStation was one of the first to take on the concept of cloud gaming. PlayStation Now, which officially launched in 2017, allows gamers with a PC or PlayStation 4 to stream games from the PlayStation catalogue for a monthly fee without having to install them. The fluidity of the experience is directly dependent on the speed and stability of the user's internet connection.

FOUNDED: 1946
HEADQUARTERS: MINATO (JP)
EMPLOYEES: 114,400
REVENUE 2019: \$78.1 BN
CAPITALISATION: \$87.33 BN
— 6758



Video on demand: a drain on energy

Video streaming is becoming more and more popular. But it's generating as many greenhouse gas emissions as Spain.

BY BERTRAND BEAUTÉ

By turning from DVDs to streaming, we thought we were reducing entertainment's environmental impact. We were wrong. "Digital entertainment gives the illusion that it has no impact on climate, because the pollution is invisible to users," says Frédéric Bordage, founder of Green IT, an eco-IT firm. But once users become aware of the real impact of digital technologies, we may start to see some tech-bashing, just as people now feel ashamed to fly."

It's undeniable: the IT sector pollutes. According to a report published in September 2019 by The Shift Project, digital technologies currently generate 4% of global greenhouse gas emissions, which is more than civil air transport. And that figure could double by 2025. But what about streaming in particular? While no study has been dedicated to the subject in its entirety, online videos are singled out. In 2018, viewing of online videos generated 300 million tonnes of CO₂ equivalent: that's as much as Spain, or 1% of global greenhouse gas emissions.

With services such as Netflix, Amazon Prime and now Disney+,

subscription video on demand is the biggest emitter of greenhouse gases in the video sector (34%), followed closely by pornographic sites such as YouPorn and Pornhub (see infographic on p. 34). The reason: video size. Ten hours of high-definition video requires more data transfer than all English Wikipedia articles combined. At that rate, the arrival of cloud gaming, which is even more content-heavy than video, is bad news.

etc.) through networks (cables, fibre optics, modems, 4G, etc.). But all of those processes consume large amounts of electricity.

According to The Shift Project, data centres are responsible for 19% of total energy consumption for digital technologies, networks 16% and user terminals 20%. So how can we reduce our impact? "The best solution is to borrow DVDs from the library," says Frédéric Bordage with a grin. "But streaming is not the main issue. The most important thing is to hold on to our digital devices as long as possible."

Production of smartphones, TVs and other tablets is responsible for 45% of digital emissions. Not to mention it uses up reserves of rare metals, such as cobalt (see the November 2018 issue of *Swissquote Magazine*). "The arrival of new streaming services, coupled with the roll-out of 5G, is a great formula for selling new machines," says Bordage. "The race to acquire new equipment is catastrophic: with increased high-speed internet access, platforms will start offering more HD content and more people will replace their TV sets."▲

**"The best solution
is to borrow DVDs
from the library"**

Frédéric Bordage, founder of Green IT

All that data is stored in huge server farms throughout the world, and then delivered to our terminals (computer, smartphone, tablet, connected TV,

TO READ, TO DOWNLOAD



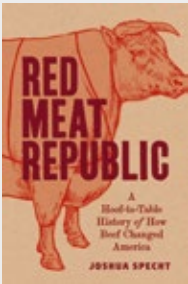
Oxford University
Press, 2019
CHF 25.-

BUILDING A RESILIENT TOMORROW

HOW TO PREPARE FOR THE
COMING CLIMATE DISRUPTION

By Alice C. Hill and Leonardo Martinez-Diaz

Given the fact that dramatic global climate change is currently under way and that it is only its exact scope that remains unknown, *Building a Resilient Tomorrow* details the policies we need in order to face climate change, as well as the costs and upcoming opportunities to do so. The book is raw and direct, but essential for decision-makers and forward-thinking investors. It's full of concrete lessons that the authors learned from their personal experience as former advisers in the Obama administration.



Princeton University
Press, 2019
CHF 30.-

RED MEAT REPUBLIC

A HOOF-TO-TABLE HISTORY OF
HOW BEEF CHANGED AMERICA

By Joshua Specht

Since at least the late 19th century, Americans – rich and poor alike – have had access to plentiful and cheap beef served at almost every meal; an abundance that isn't a coincidence. Rather, it's a result of the expropriation of the Great Plains by colonists and the power of the "meat packers" in Chicago that took control of the beef market using the tools of modern capitalism, such as scientific management and standardisation of procedures. An unknown but fascinating part of the story of capitalism, brilliantly told by young historian Joshua Specht in his first book.



Free, in-app
purchases

1GALLERY

GALLERIES, IMPROVED

1Gallery is one of those nice-to-have, practical apps that aim to be better than the default application they intend to replace. As the name indicates, the app goes beyond simply managing Android photos – 1Gallery boasts advanced features, such as an integrated photo and video editor and the ability to save photos in a password-protected location.



Google Play
Free

BATTERYGURU

A STETHOSCOPE FOR YOUR BATTERY

Of course, BatteryGuru isn't the first or the last app that monitors your batteries. But this completely free new app benefits from a clean, aesthetically-pleasing design and also includes all the features expected from a battery monitor, including detailed statistics, a dashboard, and a full health report.



Apple Store
Free trial, in-app
purchases

WHAT THE GOLF

CRAZY GOLF

More than an arcade game, What the Golf is a fun improvisation-based game in which golf is just a pretext to rethink the laws of gravity – and the rules of arcade games in general. Cats, cars, flowerpots and cows... Any object you can imagine collides with other objects in a vibrantly coloured fantasy-world twist on bowling.



Apple Store
Free, in-app
purchases

MINDNODE 6

MAP YOUR THOUGHTS

MindNode is a mind-mapping application, or a way to graphically and intuitively represent a thought process. For example, you could map a goal and all the different ways to reach that goal, whether it's a recipe or a long-term financial objective. Released this spring, the sixth version of MindNode includes several improvements, such as better support for external screens.



HOW LONG IS FOREVER?

HYT
#HYTWATCHES



K-Beauty: cosmetics get a fresh revival

Korean beauty products have taken over the world. With a kawaii aesthetic and made from exotic ingredients, the cosmetics are particularly popular with young people.

BY JULIE ZAUGG, IN HONG KONG

Lo- tion containers shaped like mandarins, pandas and octopi. Vials filled with snail slime. And a rose mask that feels like a bubble bath. With its acid drop look, the TonyMoly shop in Hong Kong looks more like a sweets shop than a place to buy cosmetics.

It is one of the success stories of K-Beauty, a trend from South Korea. Exports of Korean beauty products quadrupled between 2014 and 2018, going from \$1.6 to \$6.3 billion. In total, the industry is worth \$13 billion, according to London economic intelligence firm Mintel.

“For a long time, these brands were only available domestically,” said Martin Roll, a leading expert on Korean brands. “But about a decade ago, they began exporting, first to

Japan, then to Southeast Asia and finally to China. In the past five years, these products have made their way to the West.” This is one manifestation of Hallyu, a craze for Korean culture, which grew from the popularity of K-Pop groups and TV stars with perfect skin.

“Korean women care for their skin almost obsessively”

Michael Hurt, a Korean culture expert at Hankuk University of Foreign Studies

Today, the Korean market is still the main source of revenue for the industry. The AmorePacific Group, which dominates the segment with

more than 30 brands, generates 70% of its revenue in South Korea. “But the market is saturated,” said Roll. “In the future, most growth will come from international markets, particularly China.” China already makes up 42% of the group’s exports. Furthermore, such a heavy dependence on the Chinese market isn’t without risk (see inset on p. 66).

Korean cosmetic products owe their success to a clever marketing strategy. “The colourful, fun, almost childlike aesthetic and affordable prices make these products very popular with young people,” said the analyst. K-Pop groups, who often serve as ambassadors for these brands, further increase their popularity with teenagers.

K-Beauty is also known for using surprising ingredients, such as snail



COMPANIES TO WATCH

AMOREPACIFIC K-Beauty giant

With more than 30 brands in its portfolio, the Korean group dominates the K-Beauty market. As a result, AmorePacific was considerably affected by China’s boycott of Korean products. Sales fell more than 20% between 2016 and 2018, but they have started to recover. The company plans to open 40 new Sulwhasoo shops in China this year, bringing the total to 202, as well as 100 new Innisfree shops, according to Woorichang Chung, analyst at Mirae Asset Securities. This is in addition to online shops specific to these brands on Chinese e-commerce portals such as JD.com and Tmall.

HEADQUARTERS: SEOUL (KR)
EMPLOYEES: 11,554
REVENUE (2018): ₩5,278 BN (CHF 4.4 BN)
KRX: 090430

saliva, horse oil, ginseng and bee venom, for their hydrating or anti-ageing properties. Several brands play up their Korean heritage. Innisfree sells creams made from volcanic rock and Jeju Island camellias. Sulwhasoo creates potions made from fermented herbs used in traditional Korean medicine.

K-Beauty has also developed several innovations that have revolutionised the beauty world. “Korean brands invest lots of money into research and development and are always putting new products on the market,” said Liz Flora, who specialises in the Asian cosmetics market for research firm Mintel. “They invented BB cream (ed. note: a combination of hydrating lotion and foundation), which is now a beauty staple.”

They also invented the Cushion Compact – a sponge soaked with foundation – that combines the benefits of a powder and a liquid

foundation. More recently, K-Beauty invented zombie masks, which contain egg whites and make your face look like a zombie’s. But the smartest move was to convince consumers to follow a daily 10-step routine, including cleansing lotion, serums, masks and extracts. This ceremonial process is said to produce “glass skin” that is bright and almost translucent.

In the past three years, L’Oréal, LVMH and Unilever each acquired a Korean brand

“Korean women care for their skin almost obsessively,” said Michael Hurt, a Korean culture expert at Hankuk University of Foreign Studies in Seoul. “It would be unimaginable

Japanese group AKB48, transformed into K-Beauty pop stars, here at KCON 2019, an annual event celebrating Korean culture (Japan, May 18, 2019).



KEIZO MORI / NEWS.COM

CONCERNS ABOUT CHINA

In 2017, Beijing decided to boycott products from South Korea to protest the launch of Seoul’s anti-missile system. The number of Chinese tourists also dropped from 8 million in 2016 to 4.8 million in 2018.

“This episode led to a significant drop in sales for Korean cosmetics groups,” said Liz Flora, specialist in the Asian cosmetics market at Mintel. Flagship K-Beauty brands such as Laneige, Sulwhasoo and Innisfree saw their share prices drop 10% on the Baidu index, which measures the popularity of brands on the Chinese search engine.

Chinese brands inspired by K-Beauty have also

emerged, such as Caisy, Longrich and Herborist. Less expensive and better established in China, these brands could outperform their Korean counterparts, according to Woochang Chung, analyst at Mirae Asset Securities.

However, Liz Flora notes that after two years of shortages, the Chinese-Korean conflict has faded and sales of Korean cosmetics have rebounded in China. To grow business in China, these brands have adopted an aggressive sales strategy on social networks such as WeChat and e-commerce portals such as Tmall. They have also developed products specifically for the Chinese market.

for them to leave the house without several layers of creams and lotions.” At work, women are expected to wear elaborate make-up.

The 10-step routine is a product of this philosophy. To popularise the method, Korean brands recruited influencers to produce elaborate tutorials showing consumers how to use this lengthy list of products.

Korean companies also developed a unique buying experience. “Most brands are small,” said Roll. “Even the big groups like AmorePacific are in

fact made up of lots of smaller companies that were acquired through the years.” Besides a handful of high-end names like Laneige and Sulwhasoo – which have shops that look like museums with spas and tea salons – most cosmetics products are sold in multi-brand shops.

These shops, true treasure troves, are grouped together in certain areas of Seoul and have become tourist attractions, particularly for Chinese visitors. “Consumers feel like they’re taking part in a treasure hunt, combing through hundreds of brands in

the aisles to discover new products,” said Roll.

The success of Korean beauty products hasn’t gone unnoticed by Western giants. Most have introduced K-Beauty innovations in their cosmetics lines, such as BB creams and cushion compacts. In the past three years, L’Oréal, LVMH and Unilever each acquired a Korean brand. In late November, Estée Lauder announced the acquisition of Have & Be, the company behind cult line Dr. Jart+. Launched in 2004 by a dermatologist, Dr. Jart+ invented BB cream. ▀

F&F

Skin specialist

This group owns the brand Banila, whose cosmetics can create the “glass complexion” effect that K-Beauty fans seek. Sold in small colourful containers, these products are regularly promoted by K-Pop stars. The group also owns several sportswear brands, such as MLB and Discovery, which are very popular in South Korea. It also owns Lost Garden, a wine bar in Seoul city centre. These advantages made F&F less vulnerable to fluctuations in the Chinese market compared to its competitors. In 2018, revenue grew 19%.

HEADQUARTERS: SEOUL (KR)

EMPLOYEES: 221

REVENUE (2017): ₩ 669 BN (CHF 561 M)

KRX: 007700

ABLE C&C

Affordable cosmetics

This group owns several cult brands that target the affordable segment, including Missha, A’Pieu and Honesi, as well as a minimalist line designed for the Chinese market. Heavily affected by decreased sales in China since 2017, Able C&C lost 19 billion won (16 million Swiss francs) last year. Nevertheless, an aggressive expansion strategy in South Korea, with notably the opening of a multi-brand shop called Nunc, as well as a push in Japan, grew sales 24% in the first nine months of 2019.

HEADQUARTERS: SEOUL (KR)

EMPLOYEES: 362

REVENUE (2018): ₩ 346 BN (CHF 290 M)

KRX: 078520



Canada's Shopify takes on Amazon

Shopify is a platform where users can create their own online shop. Already a star on Wall Street, the company is now looking to expand internationally.

BY ANGÉLIQUE MOUNIER-KUHN

What do Kylie Jenner, Budweiser and *The Economist* all have in common? They all have an online shop on Shopify.

In autumn 2019, fifteen years after launching its first solution to help users create e-commerce websites, the Ottawa-based company announced that it had over one million merchants on its platform – companies of all sizes, from 175 different countries. Shopify offers its platform and all the basic tools for a subscription of \$29 a month, plus 2% per transaction. In just a few clicks, individual entrepreneurs can open an online shop and sell their products through all web channels. More expensive packages allow SMEs and larger companies to manage their inventory and deliveries, build their customer relations and gain access to tools for analysing and monitoring their business.

FAST GROWTH

When Shopify went public in Toronto and New York in 2015, the platform's subscribers numbered in the tens of thousands only. In 2018, the company sold \$41 billion worth of products (1.5% of global online sales). If its outlook is correct, the Canadian company will end 2019 with net income up 50%, to over \$1.5 billion.

"Shopify's model caters to a very concrete market need: selling directly to the consumer," says e-commerce specialist Dominique Locher, former CEO of LeShop.ch and board member at several foreign distribution

companies. "Producers' desire to sell directly to customers is a structural change that is becoming more and more common." According to the Canadian bank CIBC, Shopify has an available market of 10 million customers in the United States, Canada, Australia and Europe, and over 50 million worldwide.

The Canadian company will end 2019 with net income up 50%

Thanks to the favourable environment, Shopify became a star on Wall Street last year. Its stock gained 187%, or nearly four times more than

the already impressive performance of the S&P 500 sub-index of tech companies. With an offering price of \$17 in spring 2015, the stock was worth \$476 on Wall Street by the end of January – 28 times higher.

Before moving into the limelight, the B2B company was flourishing in the shadows. Although he blends in perfectly with today's trendy CEOs, with his signature hat and casual style, Tobias Lütke, co-founder and CEO of Shopify, has never succumbed to the sirens of Silicon Valley. The thirty-something entrepreneur from Germany decided to keep Shopify's head office in Ottawa, where a quarter of the company's 4,000 employees currently work. And Canadians are thankful for that. The tech start-up's sensational success has helped heal – at least partially – the humiliation caused by the collapse of ▶

ANALYST ADVICE

THE STOCK IS ALREADY VALUED HIGH

Although analysts admire Shopify's business model – particularly its recurring subscription revenue – and its desire to expand internationally, opinion is divided as to whether the stock will appreciate after its astronomic growth.

The company's market cap (\$51 billion) exceeds that of eBay, Twitter and Spotify, and its revenue is growing three times faster than e-com-

merce itself. But Shopify is not expected to turn a profit until 2022. CIBC analysts were cautious in their latest research report, noting that the current share price already reflects solid growth prospects. They advise neutrality, with a hold recommendation. They write: "The valuation will need to come back to more attractive levels before we recommend that investors start buying Shopify again."

Shopify's founder and current CEO, Tobias Lütke, with his signature cap. Here at a technology conference organized by the *Wall Street Journal* (Laguna Beach, California, 2018).



COLLUSION CONF

telecoms giant Nortel in 2013 and by recurring problems with BlackBerry.

“Shopify will become more competitive with Amazon by allowing merchants to deliver to 99% of continental USA in two days or less”

Legend has it that the self-taught programmer got the idea for Shopify when he was unable to find an efficient solution on the market and had to develop software himself in order to create an online snowboard shop with two friends. That was in 2004. The website eventually launched, but Tobias Lütke quickly understood that his software was more valuable and had a lot more potential than for just surfing the slopes.

“MAKING COMMERCE BETTER” Bolstered by its success, Shopify is positioning itself as an alternative to Amazon (the as-of-yet undisputed leader in e-commerce, with over 50% market share in the US) for third-party merchants. In almost messianic language, the Canadian company says it wants to “make commerce better for everyone” by helping “people become independent”. Locher says: “In addition to user-friendliness and cost transparency, Shopify offers merchants the advantage of being able to keep their brand identity. With Amazon, they lose that freedom, and their products are in competition with lots of other similar products. Still, Amazon receives 150 million unique visitors each month, which is huge.”

Shopify looks more determined than ever to scale up. Last year, the company launched its first marketing campaign in Canada and the US in order to boost its visibility. It also announced that it wants to invest \$1 billion over five years to develop its own fulfilment network in the US, modelled on Amazon's network. The

IN NUMBER

1 M

Number of Shopify subscribers

\$1 BN

Revenue for 2018, up 59% on the previous year

+4,000

Number of employees

\$51 BN

Market cap

+ \$1 BN

Sales exceed this figure in 12 different countries

first step was taken in September, with the \$450-million purchase of 6 River Systems, a US company that specialises in the automated management of storage facilities. “Shopify will become more competitive with Amazon by allowing merchants to deliver to 99% of the continental USA in two days or less,” said Goldman Sachs. Lastly, to expand internationally, the platform is now available in some 20 different languages, including German, Chinese and Brazilian Portuguese. ▲ ▼ SHOP

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Masayoshi Son announcing the 2019 results of SoftBank, of which he is founder and current CEO (Tokyo, May 9, 2019).

Masayoshi Son: the megalomaniac visionary

With his SoftBank Vision Fund, the entrepreneur has built a portfolio of coveted tech companies such as Uber and Slack. But the brutal fall of WeWork, one of his other companies, has brought to light how fragile Masayoshi Son's empire actually is. Read on for further details.

BY JULIE ZAUGG

In September 2019, it was as if a bomb exploded: the famous New York start-up WeWork, which operates co-working spaces, indefinitely postponed its highly anticipated IPO one day before the expected date. The valuation of the company, which reached \$47 billion in early 2019, fell to \$8 billion. One week earlier, WeWork's capricious CEO Adam Neumann resigned after news broke out about his unor-

thodox accounting methods. All of this led to a loss of confidence from investors.

WeWork is one of the flagship investments of the Japanese investment fund Vision Fund, which has injected nearly \$11 billion into the co-working company since 2017. Wanting to keep it afloat, Vision Fund invested another \$9.5 billion in October.

The fiasco brought to light the risky management of the \$100-billion investment fund. It is the work of Masayoshi Son, a Japanese businessman with Korean origins who is continually described as either a visionary or a madman. He emigrated to the United States at 16, making his first million by importing Japanese arcade games, such as Space Invaders and Pac-Man while still a student at Berkeley.

In 1981, at the age of 24, Son founded SoftBank, a software reseller. But he quickly moved to venture capital, investing \$100 million in Yahoo! in 1996. His biggest break came in 2000, when he purchased a 32% stake in e-commerce platform Alibaba for \$20 million. This stake is now worth nearly \$135 billion. Son then acquired shares of telecoms group Sprint and video game developer Supercell, and participated in the acquisition of Vodafone Japan.

In 2017, Masayoshi Son really picked up speed with the launch of Vision Fund, an investment fund for new technologies. The Abu Dhabi and Saudi Arabia sovereign funds invested \$60 billion into Vision Fund. The rest came from SoftBank, Apple, Foxconn and Qualcomm.

Located in an upmarket London neighbourhood, the fund is governed by a "winner-takes-all" philosophy. It has colossal sums of money at its disposal, which can be used "as a weapon by a handful of companies, chosen to take over the world, to convey competitive advantage," said

Len Sherman, an economics professor at Columbia University.

Son's portfolio reflects his ambitions. "This fund is made up almost entirely of companies with the potential to revolutionise their industry," said Miles Tabibian, an expert in real estate investments for US incubator Plug and Play. Vision Fund includes the ride-hailing app Uber, the instant messaging platform Slack, the mobile payments system Paytm, the big-data medical start-up Guardant Health, and the global leader in sensors for autonomous vehicles Cambridge Mobile Telematics.

The Japanese entrepreneur is quite forward-thinking, with an outlook stretching to the next 300 years

But the crux of the portfolio is Arm, a UK-based semiconductor manufacturer that was acquired by SoftBank for \$32 billion in 2016. The computer chips are the backbone of the ecosystem Masayoshi Son seeks to create.

Indeed, the Japanese entrepreneur is quite forward-thinking, with an outlook stretching to the next 300 years. He imagines a technological revolution, led by companies financed by his fund, that would lead up to a tipping point when artificial intelligence will exceed human capacity.

But the veneer of these techno-futuristic delusions of grandeur has started to crack, as evidenced by the WeWork debacle in autumn 2019. "The Vision Fund showers companies with millions of dollars, pushing them to grow at a rate that is too fast for their business models to catch up," said Sherman. ▸

VISION FUND IN NUMBERS

\$100 BN

The amount raised by Vision Fund, making it one of the world's largest investors in tech companies

\$45 BN

Saudi Crown Prince Mohammed bin Salman's contribution. According to Masayoshi Son, it took 45 minutes to convince him

\$800 M

The average amount invested in each business

x1.5

In the space of two years, by mid-2019, Vision Fund had invested 1.5 times more than all of the 200 largest US venture capital funds over the same period

\$18.5 BN

The total amount invested in WeWork

Thanks to the funds provided by Son, "WeWork launched into a frantic expansion, attracting clients with short, cheap rental contracts," said the economics professor. Founded in 2010, the start-up now operates 848 locations on five continents.

But this growth is built on a fragile foundation. "Most of WeWork's buildings have 10 to 15-year leases, but the company rents co-working spaces by the month," said Aswath Damodaran of New York University Stern School of Business. "If there was a recession, WeWork could find itself with millions of empty square metres on its hands."

Compass, an online real estate platform, has also grown too quickly. The number of real estate agents

ballooned from 2,100 to 8,000 in just one year, after receiving \$1 billion from Vision Fund. To attract agents, Compass promised a 90% commission rate, which is significantly more than the standard 70% at traditional real estate agencies. The group struggled to absorb the growth and sales slumped.

"Vision Fund operates like a dictatorship. One man decides everything, doesn't consult with anyone else and doesn't do his due diligence"

Aswath Damodaran, professor of finance at New York University Stern School of Business

Very few Vision Fund investments are less than \$500 million. "This artificially inflates the valuation of the companies that receive the funds," said Atul Goyal, analyst at Jefferies. The problem with these bubbles is that they burst... Uber and Slack saw their share prices lose up to 40% of their value since they went public in spring 2019.

In a move that defies all logic, the fund sometimes provides financial support to several start-ups in the same industry that are all hoping to be the market leader. For example, the portfolio includes four ride-hailing services (Grab, Didi, Ola and Uber). Some of these start-ups do not have clearly identifiable sources of revenue, such as dog-walking app Wag or robot pizza delivery service Zume.

Many observers believe that these shortcomings are the result of Son's personality. "His success with Alibaba in 2000 has gone to his head," said Sherman. "He thinks he is always right when choosing winning start-ups." Son relies on his instinct and doesn't hesitate to invest millions in a start-up after

only a ten-minute conversation with the CEO. "Vision Fund operates like a dictatorship," said Damodaran. "One man decides everything, doesn't consult with anyone else and doesn't do his due diligence."

SoftBank has paid the price for this behaviour. With upwards of \$166 billion in debt, the company recorded a loss of \$6.5 billion in Q3 of 2019 as a result of the WeWork and Uber concerns. "These scandals left lasting damage on Vision Fund's reputation," said Goyal, who noted that SoftBank shares have been nearly stagnant since 2016.

Many analysts believe that the unfortunate surprises aren't over. Other companies in Vision Fund's portfolio could go under, such as Indian hotel portal Oyo. "The company recruits small hotels to sell rooms exclusively on the Oyo site. In return, the hotels receive a guaranteed monthly stipend," said Sherman. But Oyo's business model is unclear. "Besides the name recognition, it has little to offer the hotels joining the platform," said Damodaran. Furthermore, by guaranteeing monthly revenue, Oyo also takes on all of the risk associated with the hotels' operations. Even more problematic is that the millions provided by Vision Fund encouraged the start-up to recruit thousands of hotels in India, China and the US, many of which are unprofitable.

In recent months, Oyo has either suspended or reduced the monthly payments to some hotels. In early December, 172 Chinese hotels came together to file a complaint, threatening legal action. Earlier last spring, hundreds of Indian hotels affiliated with the platform went on strike, staging a sit-in in front of the Oyo offices.

These issues haven't tamed Masayoshi Son's appetite – he is launching a second Vision Fund also worth \$100 billion. SoftBank has already promised to contribute \$38 billion. ▲



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AUTO

A smaller vehicle with high-end lineage

The most compact Range Rover on the market boasts a smooth new style and comes equipped with a range of new features, without sacrificing any of its road-worthy capabilities.

BY RAPHAËL LEUBA

RANGE ROVER EVOQUE P200



ENGINE: FOUR-CYLINDER TURBO, 1,997 CM³
HORSEPOWER: 200 HP AT 5,500 RPM
ACCELERATION: 8.5 S (0 TO 100 KM/H)
PRICE: FROM CHF 52,400.-

Better known for its misguided strategic decisions than for the quality of its products, the late British Leyland Motor Corporation Ltd did create a wild success story in its Range Rover. That was in 1970. This distinguished precursor to the SUV movement remains today, under the Tata Motors group and the Jaguar Land Rover brand, a monument to automobile production. Since the diversification that began in 2005 with the Range Sport, Range Rover has become a comprehensive line of vehicles in its own right. The design team, under the very creative Gerry McGovern, aims to give each model its own character, from the very slim Velar to the squat, compact Evoque.

After eight years, while it hasn't aged in the slightest, the Range Rover was due for a makeover. With some tweaks and modifications, the small Range has fallen prey to modernism, using and abusing all the latest

gimmicks. The "premium" label comes at a price, even for truly adventurous drivers. But before plunging into 60 cm of water, take a moment to admire the sophisticated machine, foreshadowed by deployable exterior door handles and the elaborately concealed back windscreen wiper. Inside, the intense digital rear-view mirror – superb for observing the movements of drivers at a red light – is part of the navigation centre, complete with a head-up display, configurable instrumentation, a large double touchscreen and a whole host of driving assistance features.

The ambiance is refined, but the lovely rotating automatic gear shifter has been replaced with a heavier gear stick. All Range Rovers regardless of size come with a lethal weapon: the "Terrain Response" feature and its various driving modes can be selected via the menus on the lower screen. Novelties include an all-terrain progress control (ATPC)

and rear towing assistance. The Evoque II is equipped with a good-sized boot (472 dm³) despite a short length (4.37 m). When seated in the oversized seats, it's easy to lose sense of the reality of driving, with a very filtered steering system and a smooth gas pedal. The "iron arm" forced by the active trajectory control seems even more brutal as a result.

The simple petrol engine – still 200 hp – and the 9-speed gearbox effectively manage this 4x4 weighing 1.7 tonnes while empty. Fuel consumption drops slowly to less than 11.5 L over 100 km of road use. The MHEV mild hybrid is nothing spectacular, but the rechargeable PHEV hybrid version is coming soon. The 235 mm tyres with optional 20 inch wheels is a blessing for handling but rather unfortunate when it comes to CO₂, comfort and country roads. The Evoque will have to contend with these downfalls when up against the Audi Q3, BMW X1 and other competitors. ▀

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toyboard.fr

From CHF 162.-



THE BRAND LOVED BY JAMES BOND

Loyal to its partnership with the 007 agent, Omega created a limited-edition collection with only 257 pieces produced. It includes two Seamaster Diver 300M pieces with the Bond family crests on the dial at 12 o'clock and on the box. Presented on black and grey straps inspired by Nato, the duo is enclosed in a case engraved with Globe-Trotter.

omegawatches.com

CHF 42,000.-



AUGMENTED GLASSES

Jura-based company Julbo developed smart glasses designed for endurance sports. Weighing only 35 g with a battery life of 12 hours, the EVAD-1 smart accessory displays speed, distance and heart rate right in the wearer's field of vision.

julbo.com

CHF 535.-



SMART WINE CELLAR

Want to catalogue and locate your countless bottles of wine in the blink of an eye? It's simple with Caveasy, a smart wine shelf that has a light under each bottle. Now you have a dynamic inventory of your cellar via the dedicated app. Just take a photo of the label and that's it. The app also suggests food pairings for each wine as well as the best time to drink it. The shelf comes in four sizes, which holds from 48 to 168 bottles.

caveasy.com

From CHF 650.-



CLEAN SOAP

With notes of leather, black tea and cedar, Old Scotch leather shower gel by Philippe Cart evokes the cosy atmosphere of an English sitting room, sipping a glass of scotch next to a crackling fire. The Lausanne-based high-end perfume expert wanted to create a sustainable luxury product: made from a plant base containing no soap, with 100% recycled and recyclable packaging.

philippepk.com

CHF 48.-



SNEAKERMANIA

Parisian malletier Louis Vuitton has designed cases for sneakerheads. With a transparent panel at the front opening, each box can hold one pair of sneakers displayed as a work of art. A magnetic frame holds two drawers that can hold cleaning products and other accessories. The boxes can be arranged on top of each other or however the owner wishes.

louisvuitton.com

Price on request



GREEN BACKPACKS

Environmentally-friendly start-up Pinq Pong, based in Cologne, designs backpacks made from 100% PET recycled bottles. Certified vegan, the German brand only uses products that do not harm the environment in its production process. It also monitors the working conditions of each of its suppliers. Welcome to chic, ethical design.

pinqpong.com

From CHF 109.-

TRIED AND TESTED

DELIVERING
FOR UBER EATS

BY BENJAMIN KELLER

The California meal delivery service has expanded to Switzerland. Our reporter stepped into the shoes of a food delivery cyclist in Lausanne.

“I’ll handle the delivery guy,” said the McDonald’s employee to his busy coworker. The delivery guy is me. I’m delivering Big Macs for Uber Eats. It’s not an ideal gig for a vegetarian. But I wanted to know what it was like to deliver for the California company that brings together restaurants, delivery people and customers via an online platform. I put all the food packages in my bag, click “Start” on my mobile, jump on my bike and pedal to my third customer of the day.

A competitor of Smood.ch and Eat.ch, Uber Eats launched in Switzerland in late 2018, first in Geneva and then in Lausanne and Zurich. This service has faced criticism for several reasons, including working conditions for delivery drivers, who are paid per delivery and considered “self-employed” workers. For example, they don’t receive any type of benefits. Anyone can sign up in just a few clicks. All you need is a Swiss identity card (or work permit), proof of a clean criminal record, and a form for the Cantonal Consumer Office – as well as other documents for motorised vehicles. The base salary is 4 Swiss francs to pick up the food at the restaurant, 1.5 Swiss francs to deliver

and 1.5 Swiss francs per kilometre travelled between the restaurant and the destination. Bonuses are offered, particularly if it’s raining (up to 30 Swiss francs per day).

I’m no fool, so I wait for a sunny day. I open the app for the first time at 11.30 a.m. on a weekday. After five minutes, my telephone buzzes. I accept the order. A pizzeria 2.5 km away from my house. I put on my enormous insulated square backpack (Uber leases them for a deposit of 120 Swiss francs) and get started. I have to pick up two pasta dishes and a pizza. The pizza is hell. I need to hold the bag horizontally on a metal stand that I attach to the handlebars. And to make matters worse, I take the wrong street on my way to a customer’s house. The 2.2 km trip takes me 24 minutes. My salary comes out to 8.81 Swiss francs.

BADLY PAID AND STRESSFUL

I made a number of observations during this baptism of fire. First: the pay is terrible. The trip to the restaurant isn’t included in your earnings. What’s more, the time between the order and the delivery was 42 minutes. That comes out to 13 francs per hour. Second: the work is tiring and stressful, especially

without an electric bicycle in a hilly city like Lausanne – but on the other hand, it’s exercise and environmentally-friendly. Third: I take more risks than usual in traffic. And fourth: never accept pizza deliveries. But the problem is that you never know in advance what you’ll be delivering. Or where, for that matter.

After five minutes, my telephone buzzes. I accept the order. A pizzeria 2.5 km away from my house

I completed three deliveries in one day, all for McDonald’s. In total, I earned 34.20 Swiss francs for 2 hours and 48 minutes of work. It wasn’t as awful as I’d imagined. The idea in itself is quite a good one, and I liked the deliveries by bike, but not under the conditions set by Uber. On that note, the rain bonus is particularly bad, because it entices people who really need the money to take excessive risks. I’m lucky that I’m not in that situation. ▲



JAKUB PORZYCKI / AFP