

HANDELSKRAFT 2021

DIGITAL FREEDOM

CONTENTS

EDITORIAL	04	DATA-DRIVEN BUSINESS.....	32
Digital Freedom.....	04	Beyond Big Data	33
INTRO.....	06	Interconnecting Data	34
The Digital Maturity Test	07	Post-Cookie World	36
E-COMMERCE: THE E STANDS FOR EXPERIENCE...08		Segmenting with Clusters	38
Digital Business Is More Than		From Dashboard to Storyboard	41
Just a »Buy« Button.....	09	A Bot for Every Occasion	42
From Data to Decisions	10	Excursus: AI Undergoing a Reality Check.....	44
From Product Information to		Commerce.....	44
Product Experience	12	Marketing	44
From Usability to Positive UX.....	14	Sales	45
From Keyword Bingo to Page Experience	16	Service.....	45
From Products to Services	18	TECH-TELMECHTEL	46
From Shop to Feed.....	20	The Declaration of IT-pendence.....	47
COLLABORATION.....	22	DevOps as Tech Hybrids	48
Remote Works	23	Technical Business Monitoring.....	50
Hybrid Workplaces.....	24	Performance Boost JAMstack.....	52
Virtual Corporate Culture.....	26	Low Code – High Score.....	54
Tutorialisation.....	28	Best of Cloud	57
Room for Innovation.....	30	Leasing Instead of Buying	58

FACTS & FIGURES	60	SOCIAL COMMERCE	96
Trust Is Good, Figures Are Better	61	Feeds Become Shoppable (Once Again)	97
Digital Experience	62	One-Stop Shops.....	98
Customer Needs	64	Messenger Marketing.....	100
Payment in Germany	65	TikTok Is Business-Relevant	102
Marketplaces in the DACH Area.....	66	B2B Influencer Marketing	104
E-Commerce	68	IN CONCLUSION	106
Social Commerce	71	There Is No Going Back	107
Hybrid Working World	74	ABOUT US.....	108
Technology	76	A Selection of Our References	118
AI, BI & Data Business	78	A Selection of Our Partners	120
FUTURE RETAIL	80	A Selection of Our White Papers.....	122
... Is Digital-First Retail.....	81	SOURCES.....	124
Rethink Retail	82	PHOTO SOURCES	138
Quick Commerce.....	84	IMPRINT.....	142
Everything Is Possible, Service Is a Must	86		
Retailification.....	89		
The Loyal Family	90		
Humanising Business.....	93		
Full Transparency	94		

DIGITAL FREEDOM

The beginning of this decade has shown that brands, retailers and manufacturers need to digitalise their marketing, sales and service processes more than ever in order to reach their customers – especially when »digital first« is the only possible way to reach customers due to the pandemic. Only companies that adopt a digital-first approach and act in a data-driven manner will remain innovative and thus meet the call of customers, but also that of their employees and partners for digital freedom. Whether in private or professional life: availability is the key to success. People increasingly insist on the freedom to organise their working day around their private life – and not vice versa. This means that digital freedom not only

comprises the independence of the place where people shop, communicate and interact, but also – as more and more companies have to realise – the independence of the workplace.

Companies first have to find their place in this new freedom. It is important to clear the way for new procedures, structures and processes. 2020 has shown what is possible when there is no other way and, above all, when time is of the essence. Companies have learned that digital transformation cannot be postponed and that they must develop and use quick, flexible solutions. Thanks to the psychological stress, the new Twenties actually have the potential to become Golden Twenties in this regard because the opportunity is more favourable than ever: digital is now!

dotSource stands for digital freedom – in the everyday working life of our more than 300 digital experts, for our clients and their customers, for our partners and as part of Digital Business School. On our corporate blog Handelskraft, at the Handelskraft Conference and at the B2B Digital Masters Convention, we discuss how to turn digital freedom into entrepreneurial success.

We would like to thank our employees and clients who shape digital freedom every day for making our trend book possible again this year.



EDITORIAL



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INTRO

THE DIGITAL MATURITY TEST

All of a sudden, things that have either been unthinkable for years or have not been approached and implemented digitally out of habit are now possible. True to the slogan »Physical distance makes the innovation grow faster«, many – sometimes wild, but no less successful – ideas and campaigns emerge that will resonate in e-commerce for a long time to come.

Large companies such as the established department store KaDeWe in Berlin are entering cross-channel commerce with an online shop and an app. After all, department stores can also come to the customer if the customer does not come to them. The fashion department store Breuninger replaces personal consulting in branches, which cannot be provided at the moment, with specially set up online ordering and consulting services to offer customers a

high-quality shopping experience despite the distance. MediaMarkt and Saturn make it possible to order products from their stores⁰¹ because it does not make sense to let products gather dust in the store while online stocks are sold out.

During the lockdown, store employees at Decathlon become logistics service providers, get online orders ready for dispatch in the closed stores or contactlessly put them in customers' car boots in drive-ins.⁰² With »Project Downtown«, Shopware even makes its platform available for free and enables local platforms, for example BZHeartbeat in Bozen, to compensate for sales shortfalls caused by the crisis. The operators of various shops, restaurants and service providers in Bozen had already joined forces before COVID-19 but continued to develop their digital skills and strategies in the long term thanks to the Shopware initiative.⁰³

The idea of local marketplaces is therefore experiencing a revival with a broader intention: instead of being a nice-to-have with the desire to make additional sales, the new local commerce platforms ensure visibility of local products and businesses as well as customer traffic despite the shutdown – even in B2B. Via the cross-industry network Mercateo Unite, retailers, manufacturers and B2B customers from Leipzig can buy and sell catalogable products online in order to open up new digital sales channels.⁰⁴

2020 has been a historic year in many ways. Not only has it provided countless examples of new digital ways, but it has also been the benchmark for digital maturity for all companies. An enormous opportunity that has shown once and for all: digital readiness is no longer optional but mandatory.

E-COMMERCE: THE E STANDS FOR EXPERIENCE



DIGITAL BUSINESS IS MORE THAN JUST A »BUY« BUTTON

The bait must appeal to the fish, not the fisherman. Therefore, it is of no use for retailers and manufacturers to complain about customers who are supposedly too demanding. If you take a closer look, you will see that users do not necessarily expect fancy features and spectacular content. In most cases, the insufficient implementation of basic aspects of the online experience throughout the customer journey causes frustration. From incorrect search results and incomplete product information to products out of stock: 72 per cent of German online shoppers already faced these difficulties in B2C and B2B.⁰⁵

It is still important to identify trends at an early stage and integrate them into your own corporate strategy. However, you must not lose sight of the essentials.

Especially in the rapidly changing digital business environment, companies should always return to what made e-commerce successful in the first place: quick page load times, efficient search options, an appealing design, personalised experiences and customer-oriented services. The prerequisite for a great customer experience is thus the seamless integration and interconnection of individual systems.

New trends and old virtues are by no means in conflict with each other. In fact, technological innovations play a significant role in determining the standard of digital customer experience and can take the basics of e-commerce to the next level – be it a business intelligence tool for data evaluation, product experience management for personalised product information or live chats for customer-oriented services.

FROM DATA TO DECISIONS

More and more corporate data is being generated throughout the entire value chain. In reality, this data is mostly tied to applications and trapped in data silos, so no data-driven added value can be created. Modern business intelligence tools are the solution to this problem: they bring together data sources and make it possible to evaluate them with the help of artificial intelligence.

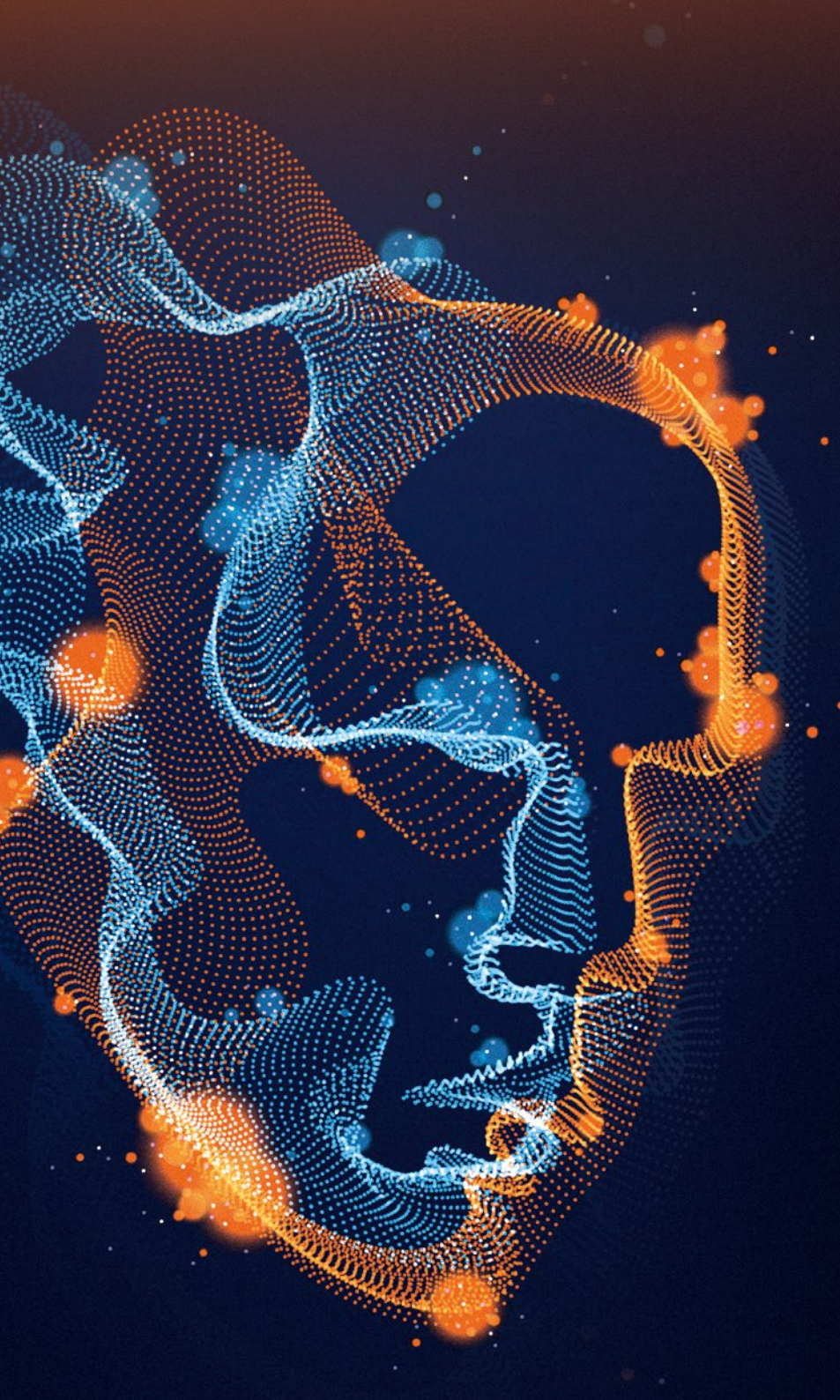
Smart analytics tools allow companies to better understand customer behaviour, identify problems at an early stage and make well-founded business decisions as a result. Customers, in turn, benefit from significantly shorter response times to service enquiries, personalised user experiences and an improved customer journey.

The optimisation opportunities that result from consistent data evaluation are as diverse as the business models of brands, retailers and manufacturers. The taxi app FREE NOW, for example, saves valuable

time by using a BI system and can offer its 14 million passengers a better service. The BI solution supports FREE NOW in important operational activities, such as the definition of service areas. Based on the data of previous journeys, which is displayed using a heat map, it is possible to determine where most journeys take place in order to adjust service areas accordingly. Drivers thus benefit from higher passenger numbers, while customers can find a ride more quickly.⁰⁶

The hardware manufacturer Lenovo, in turn, uses BI software in order to bring together existing data from different systems and various Excel spreadsheets. Thanks to the self-service analyses, the sales team saves an enormous amount of time because the data does not have to be compiled manually from various sources in the first place – time that can instead be invested in something really important: the company's own customers.





Lenovo also uses the BI solution to analyse customer feedback it receives on its social media channels in order to derive recommendations for action for UX and product design.⁰⁷

Using a BI tool, the meal kit provider HelloFresh was also able to develop a better understanding of the behaviour of its own customers. Via a dashboard, data is collected in real time, enabling HelloFresh to react quickly to observed customer behaviour and optimise campaigns where necessary. As a result, the company benefits from a higher conversion rate and increased customer loyalty.⁰⁸

Do you make data-based decisions?

FROM PRODUCT INFORMATION TO PRODUCT EXPERIENCE

In recent years, the product portfolios of relevant e-commerce providers have increasingly included one particular buzzword: digital experience platforms. These platforms connect marketing, sales and service applications to present products and services in such a way that they can be experienced as part of the customer journey.

Even a still frequently underestimated discipline of e-commerce is now becoming an experience factor: product data management. However, the focus is no longer purely on processing and providing product data, as is the case with classic product information management (PIM). Instead, »product experience management« (PXM) focuses on the question of which product data is used in which context for which customers.

This way, customers are to find the specific product they are looking for more easily. Let us look at

an example: a user searches for »jacket« in the online shop. While a traditional PIM system displays matching products based on the search term, the PXM system puts them into the appropriate context beforehand. A wedding guest, for example, is looking for a chic jacket to match the dress, while a camping holidaymaker is more likely to be looking for an outdoor jacket.

In order to map such scenarios, however, data has to be »contextualised« first. The data set for such a product is thus supplemented with concrete use cases. Online retailers should therefore give much more thought to customers and their needs in advance, define individual use cases and think about how products differ from each other.

PXM, however, does not work without PIM. The PIM system rather forms the basis for successful product experiences. It stores all

product data in one central system and thus ensures the data quality that is required to turn product data into product experiences. It is not for nothing that many established PIM system providers add PXM features to their system.

Detailed product information is important for 80 per cent of customers. However, only 24 per cent of retailers have it on their agenda.⁰⁹ This should change as soon as possible. After all, providing customers with consistent, contextual product information pays off in the long term as it leads to an outstanding customer experience.

How do you make your products tangible?





FROM USABILITY TO POSITIVE UX

The aim of the user experience design of an online shop is to guide users to achieve the desired goal in the shortest possible way, i.e. as intuitively and simply as possible. However, great usability alone is not enough to retain customers in the long term. Instead, a user experience is required that triggers positive feelings: »positive UX design«.

Positive UX design deliberately includes the well-being of users in the design process. The goal is to make customers not only satisfied but also happy during the customer journey and thus to create an emotional connection between them and the shop or product.

A method to bring more positivity into the design process is to conduct user experience interviews. In these interviews, customers are openly asked about positive experiences in a certain context. The results can be an inspiration for UX designers and help to create positive experiences by designing the shop.

An example of how UX design can lead to feelings of happiness is the search engine Ecosia.¹⁰ It uses a part of its monthly profits to plant trees. The number of trees that have already been planted is visualised by a live ticker directly below the search field. Even just entering a search term triggers positive feelings in users. By deciding to use the »green search engine«, they contribute their share to slowing down climate change.

More diversity in the design process also leads to a more positive perception of digital products and services. Given the multitude of devices used, the variety of possible situations and the private context, it is therefore important to offer all users an equally positive experience – especially for users with physical impairments. Inclusive design has established itself as a method thanks to which functionality and intuitiveness can also be ensured for visually impaired users. In Microsoft's »Inclusive Design Toolkit«, there are various design options that show how companies can build accessible web presences by using strongly contrasting colours or audio tools.¹¹





For the relaunch of its online shop, bofrost*, Europe's largest direct distributor of frozen food, also placed great value on such an inclusive design. The company offers its customers a free audio catalogue and the option of having all content read aloud by screen readers – software programmes that many visually impaired people use.¹²

The importance of taking user habits and interests into account is demonstrated not least by Google's »Page Experience«, which will become a fixed ranking criterion in 2021.¹³ Companies can prepare for this by integrating positive UX and diversity in the design process of their websites.

What feelings does your website trigger in users?

FROM KEYWORD BINGO TO PAGE EXPERIENCE

Whether Panda, Penguin, Fred or BERT – besides their funny names, the Google updates so far have another thing in common: they all had more or less of an impact on the ranking of websites in the search engine. From the very beginning, Google has always wanted to present users with the most relevant search results. For this reason, the tech giant constantly optimises its own algorithm.

Google's latest update in 2021, which is called »Page Experience«, focuses on user-friendliness.¹³ User experience and search engine optimisation are thus becoming increasingly intertwined. The times when it was all about keywords and backlinks are over. Google rates those websites positively that offer high-quality content and have a user-friendly design.

By doing so, Google has managed to break down the complex topic of user-friendliness into simple KPIs. In order to measure the page experience of a website, the search engine takes into account the mobile user-friendliness, different security aspects and the »Core Web Vitals«. The latter were

already announced in May 2020 and cover the load time, interactivity and visual stability of a website.¹⁴

In addition, Google is increasingly developing organic search queries towards marketplace interfaces. The new »Popular Products« feature presents search results in a separate section that bundles





and filters popular products from countless online shops. Up to now, the feature has been displayed on mobile devices for search queries for clothing, shoes and accessories.

In the future, however, it will be expanded to include even more categories, products and devices.¹⁵

Google itself identifies the most popular products from millions of shops, organises them and updates the corresponding information. However, in order for your own products to appear in this feature, structured product data must be entered correctly and as completely as possible for organic search results and images.

If they have not already done so, now would be a good time for retailers to focus on providing an ideal user experience in order to stay at the top of Google's search results. From an SEO perspective, high-quality content, accurate product data and a good user experience are crucial to keeping users engaged in 2021.

How experience-oriented is your website?



FROM PRODUCTS TO SERVICES

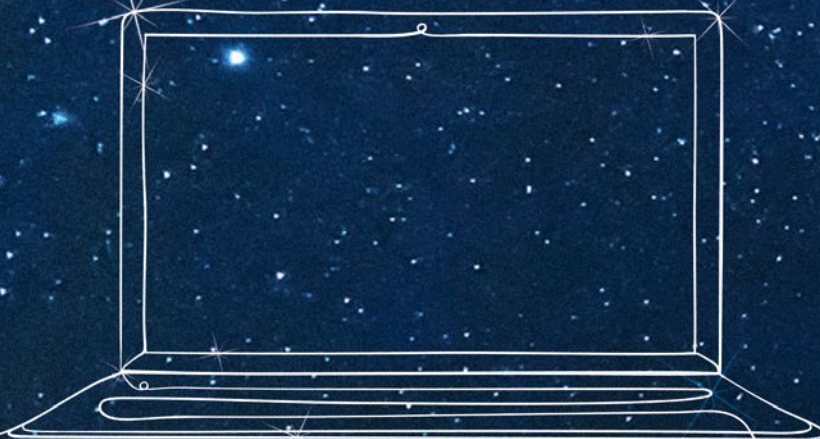
The advantages offered by online shopping, for example the wide range of products and the possibility to compare prices, go hand in hand with major research efforts. If you want to book a flight, hotel and travel insurance, for example, you often spend days looking for the best offers. Just 20 years ago, things were different: it only took a quick visit to the local travel agency to book an entire package tour.

The convenience that online shopping promises us often means one thing in particular: work. Online shopping in B2B is even less convenient: after all, B2B shoppers usually do not sit comfortably on the couch with their tablet but want to complete the purchase or research from their workplace as quickly as possible.

It is therefore time to take this additional work away from customers by offering digital services.

A study conducted by Zendesk shows that service has a significant impact on customer loyalty and is second only to price when it comes to determining whether customers remain loyal to a brand. However, less than 30 per cent of all companies offer service applications such as live chats, social messaging, chatbots, etc. on their website.¹⁶

There are numerous use cases: KLM's BlueBot, for example, helps holidaymakers to discover new travel destinations, book flights and



even pack their suitcase. It is based on Facebook Messenger and can be accessed via Google Assistant. If the bot reaches its limits, the conversation is forwarded to a service employee.¹⁷

MEVACO, one of the leading manufacturers and suppliers of perforated plates and expanded metal, shows that digital services also play a major role in B2B.

Thanks to the implementation of a service cloud, both customers and the company's customer service benefit from quick con-

sulting via live chat. Moreover, entire customer profiles can be connected thanks to the live agent and appropriate responses can be provided for each context. This way, the entire customer journey can be taken into account in each conversation and customer-centric consulting can be guaranteed.¹⁸

Prerequisites for inspiring customers with digital services are an integrated system landscape and high data quality, for example based on a CRM system. It brings together

all customer information in one place so that service applications and employees can always access the entire history of customer interactions and react accordingly.

How much work do you take away from your customers?



FROM SHOP TO FEED

The pioneers in personalisation are not fashion retailers or marketplaces, but social networks and streaming services. After all, it is no coincidence that Netflix mostly presents those things on its homepage that users actually want to watch. »There are 33 million different versions of Netflix,« Joris Evers, former Head of Communications of the streaming giant, already explained in 2013.¹⁹ What is meant by this is that the entire portal is personalised and provides each user with an individual feed according to their preferences.



WATCH



In e-commerce, such streams are becoming increasingly relevant. In their feed, online shoppers are addressed personally and receive an individual compilation of useful content and personalised product recommendations. Not only is the shopping area individual, but it is also interactive. On the one hand, customers can put together suitable product combinations themselves; on the other hand, they are automatically presented with personalised content. In addition, content from external channels such as YouTube or Instagram can be integrated.

The online shop of Outletcity Metzingen, for example, offers its customers a personal stream full of interesting blog

articles on the latest trends in its product and brand world, personalised purchasing recommendations and an interactive product finder. For instance, users are presented with suggestions for outfits that match the last jacket they bought, or with their favourite products that are currently on sale.²⁰

The order, content and layout of the feed adapt to individual customer preferences and are only intelligently compiled at the moment of access. The mix of relevance, service, inspiration and interaction keeps customers entertained and ensures that they regularly return to the online shop to be inspired.

Shopping streams can also be used in B2B as personal shopping areas. This way, installation instructions, ways to contact your personal sales representative or video content on products requiring explanation can be presented in the feed.

In order to implement all of this technically, data on users and their purchasing behaviour must be available. Companies also need a content management system (CMS) that is able to access the relevant data from marketing automation and CRM tools to connect user profile content with the intention.

How individual is your shop?



COLLABORATION

REMOTE WORKS

The cultural scientist Christoph Herzog wrote a few years ago: »The workplace is no longer a place. It is simply where we are productive.«²¹ One could not describe the evolution of the modern workplace in 2021 much more aptly. Welcome to the future, welcome to the »New Normal«, welcome to new opportunities and welcome to new challenges.

Digital office infrastructure opens up modern opportunities: documents are automatically stored in the cloud, online tutorials contribute more than ever to the training of employees and regular video conferences ensure productive and smooth communication processes.

And they have to. If 2020 has shown one thing, it is that remote work works.

With an open mindset and innovative tools, the flexible and digital workplace will continue to promote employee satisfaction and collaboration in the future. Those who work from home spend less time commuting, have more time for their family and are absent due to illness less often than colleagues not working from home.²²

The challenges many organisations are facing now are as follows: »How can the social aspect be preserved?«, »How do I onboard new employees?« and »How do I build employee loyalty in times of remote work?« The answers are: hybrid workplaces and not only virtual, but also real corporate culture. The prerequisites for this are room for innovation, smart knowledge management and a modern leadership style.

HYBRID WORKPLACES

From working from the office to working from home: what was once considered a privilege has become the norm for the majority of employees with office jobs. The switch requires some preparation, for example the right equipment to maintain social cohesion as well. According to a survey commissioned by Randstad, 61 per cent of employees in Germany worked from home in 2020. However, the potential was not yet fully realised because, theoretically, up to 80 per cent of employees can work from home.²³

A trend that has long been established in other countries, for example the Netherlands, is flexible working.²⁴ The hybrid workplace – the freedom to work independently of location or in the office – is also becoming increasingly popular with German employers. In the long term, flexible working leads to cost reductions, more productive

employees and makes companies more attractive for potential applicants.²⁵ Hybrid workplaces completely redefine the term »office«. It is evolving from a simple workplace into a meeting place for collaborative activities and networking.²⁶

Executives also benefit from the rethink. Since 2015, the digital agency Vast Forward has shown how remote leadership can be implemented successfully. Maren and Matthias Wagner run the company from a boat with which they sail on the Mediterranean. Projects are handled with central project management and a network of freelance programmers. There is a permanent office in Hamburg, but the agency has basically been set up remotely from the very beginning.²⁷ With their boat project, the Wagners are always between holiday and work. They maintain daily contact with their employees and show how flexible working can be successful.





The majority of German employees appreciate the opportunity of being able to choose where to work.²⁸ Satisfied employees also mean that the company is successful. »Business is people,« as Panasonic founder Konosuke Matsushita already said.²⁹ The human factor matters – whether it is colleagues, business partners or customers.

With the integration of the right knowledge management systems, regular feedback loops and an accordingly practised corporate culture, hybrid workplaces may sometimes separate employees spatially, but never socially. Motivated and trusting collaboration can only succeed if the team spirit is right.

Are you ready for hybrid work?

VIRTUAL CORPORATE CULTURE

The office coffee machine may not always have the best coffee, but it is irreplaceable as a social get-together. It is the place where you find out who is currently working on what, which restaurants are suitable for business lunches or what the childcare situation is like.³⁰

Office grapevine binds employees together and also works digitally. Teams can take the liberty to set aside a few minutes in the morning to discuss pending and completed tasks, organise digital lunch dates or plan virtual team events in the evening. In short: maintaining the »we« feeling. Although employees are in different places, they should continue to work together as a team. To do so, they need to keep their office routines, for example by using a chat to welcome colleagues in the morning and say goodbye to them in the evening. Is it someone's birthday on the team? Then it is time for a joint message or a flower bouquet on the doorstep.





A monthly video chat meeting for all employees is also a good way to build a sense of togetherness and present a comprehensive, personal business update instead of writing an e-mail. Features such as breakout rooms at the end of virtual conferences, i.e. splitting participants into smaller video chat rooms, can also simulate the random encounters at the coffee machine online and strengthen the feeling of togetherness.

This shows that virtual corporate culture is far more than just providing internal content on sober intranet pages – and if this is not yet the case in your company, it is not too late to change. The example of AOK Bayern shows that it is also possible for a company with 10,000 employees to evolve from a traditional intranet to a social intranet.³¹ With the implementation of the KIWi platform, its employees were able to manage information independently, build a nationwide network and communicate across

hierarchies from one day to the next. The purely informative nature of the old intranet was abolished and replaced with a new type of corporate culture that promotes communication.

In addition, the intranet is increasingly being developed as a gateway to the workplace, which can be used to check e-mails, chat with colleagues, search for certain documents and launch all kinds of tools. Do you want to congratulate a colleague on his ten years of company service? Just leave a message on his profile. Have you missed an important video conference? The recording can of course be found on the documentation page. Therefore, you must always find innovative ways to develop as a company and to take your employees with you. Besides the social component, the professional qualifications of employees must not be ignored either. Thankfully, there are tutorials.

How do you expand your corporate culture virtually?

TUTORIALISATION

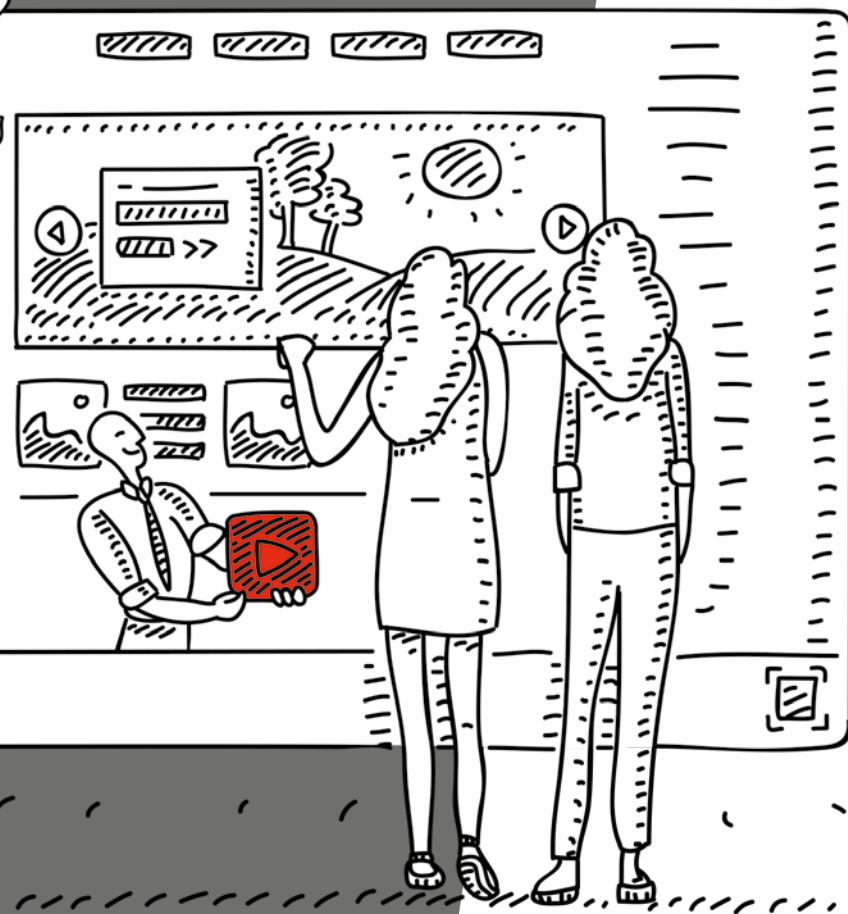
Companies benefit from the digital freedom of time- and location-independent video conferences as well as from their recordings. Internal training courses, seminars, client meetings and larger meetings are simply recorded. Not only does this make it easier for participants to keep track of what is going on, but it also guarantees access to knowledge for all those who could not attend live. Whether via Slack, Google Hangouts, Microsoft Teams or Zoom: the number of available tools is large and offers companies the opportunity to make communication and knowledge transfer even more efficient.

Not only do these tools allow for location-independent collaboration and training, but they also increase productivity. Microsoft's video service »Stream«, for example, automatically creates a transcript for every video recorded in Micro-

soft Teams. This transcript provides first-hand content of what was said. Via the search function, content can also be retrieved more easily and more quickly than via a classic transcript or subsequent documentation. Not only does this save time, but it also ensures that no knowledge silos are created.

Fewer business trips, face-to-face events and training courses give an enormous boost to the need for digital access to knowledge and virtual training opportunities. In this context, enrolments in external online training courses have also increased immensely. Courses related to teleworking (21,598 per cent more enrolments than in 2019), virtual teams (1,523 per cent), decision-making (277 per cent), self-discipline (237 per cent) and stress management (235 per cent) have been particularly booming.³²





It is a logical development that people do not only benefit from the added value of digital video tutorials (be it cooking recipes, bicycle repairs or fitness exercises on YouTube) in their private lives but also in the business environment, thus generating time savings.

On average, e-learning takes 40 to 60 per cent less time than offline learning because it is more efficient and easier to visualise content.³³ In contrast, only about one per cent of the working week is dedicated to training and development in the workplace.³⁴ By focusing more on online tutorials, organisations can save resources even more effectively and at the same time train their employees.

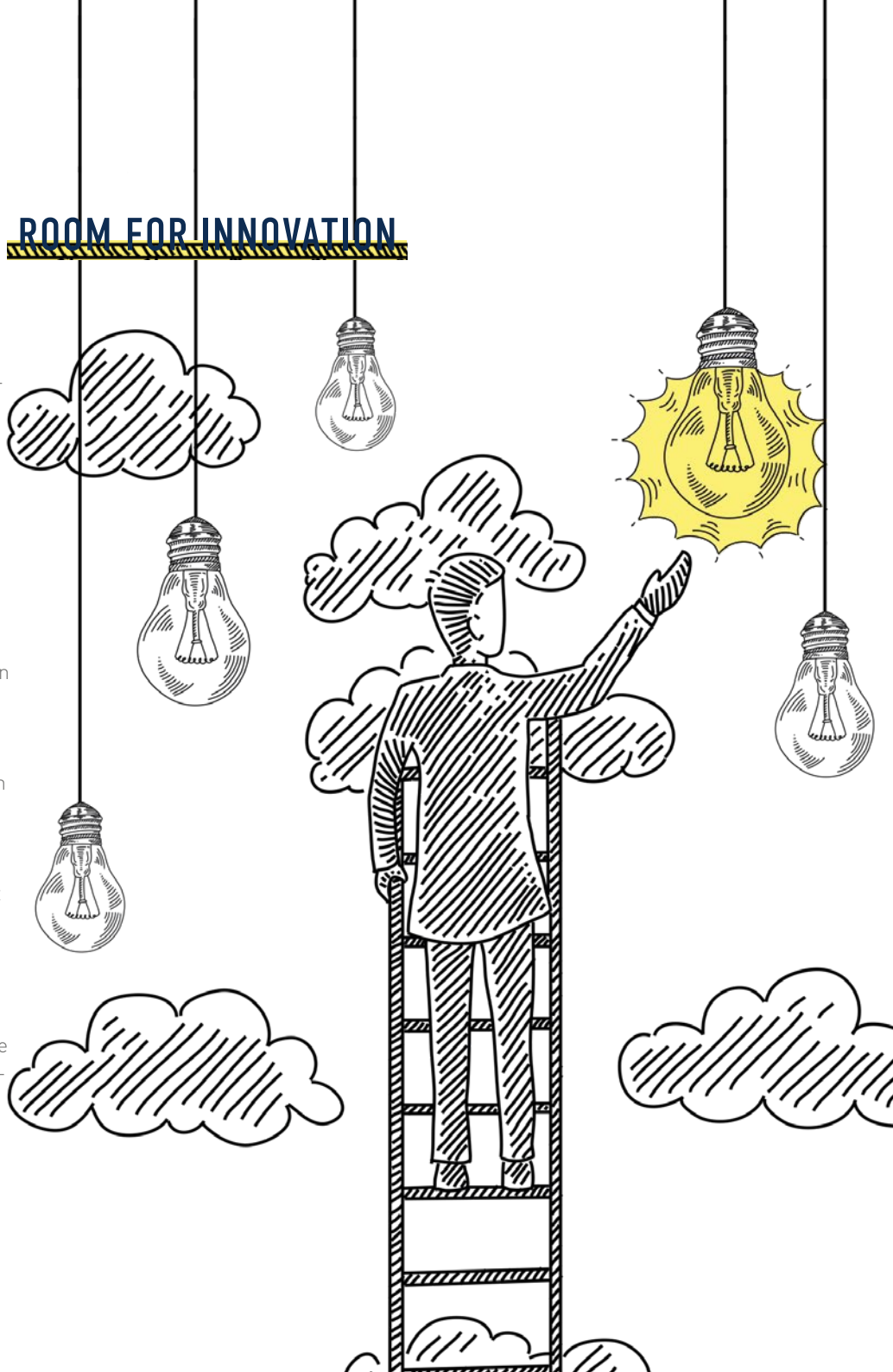
How do you impart your knowledge online?

ROOM FOR INNOVATION

Organisations must constantly evolve in order to remain competitive. One of the most important prerequisites for good ideas not to fail due to internal hurdles, but to grow into innovations is an open corporate culture.

One approach to developing innovations is called »bootlegging«.³⁵ During the prohibition era, this term described the smuggling and trafficking of banned substances. In business jargon, it is used for projects that are secretly driven forward during the early phase of an innovation process. There are often no predefined resources, employees are given freedom to innovate and superiors are only involved in the process at a later stage so that they do not influence it.

Google has repeatedly shown successful examples of bootlegging. For many years, the company has been relying on the 20 per cent rule for employee satisfaction and innovative spirit: software engineers



are allowed to spend a fifth of their working time on business projects of their choice in order to optimise processes or develop something completely new. This leads to more responsibility being passed on to employees and motivates them to create real innovations.

One day a week, Google engineers thus work on projects that they think might be important for the company, rather than on the priorities that the management sets for them. AdSense for Content, Gmail and Google Maps, for example, were implemented as 20 per cent projects. Other well-known examples such as Nespresso's coffee capsules or 3M's Post-its were also created in such contexts and showed that idea generators acted with organisational wisdom³⁶ – always under the premise of linking their own ideas to the core business of the company they worked for.

Innovating is not a linear process, but often takes place throughout the company at different times in different phases.³⁷ The tricky part is to develop the right feeling for innovations at the right time and to give them space. Whether it is more efficient tools for employee communication, the organisation of hybrid working spaces or the virtual mapping of corporate culture: innovation paths are created to be walked on. This can be done even more quickly with the right footwear and a knowledgeable tour guide.

How do you promote innovation in your company?



DATA-DRIVEN BUSINESS

BEYOND BIG DATA

For a long time, »big data«, i.e. collecting huge amounts of data, was considered one of the most important technology trends. The term first appeared in Gartner's »Hype Cycle for Emerging Technologies« back in 2011.³⁸

Today, ten years later, most companies have recognised the importance of data. Only two per cent of companies in Germany and Switzerland do not collect any data so far. However, very few companies actually exploit its full potential. Data is mainly used to identify existing problems, not to optimise processes in a data-driven way.³⁹

Thanks to sophisticated tools and scalable cloud solutions, simply collecting data is no longer the problem. The challenge on the way to data-driven decisions rather lies in poor data quality, legal restrictions or simply a lack of expertise.

A study conducted by IDC confirms: a strong data pipeline is the central aspect of data-driven decisions. Companies that manage to pool their data in one place, make it available and ensure high data quality also benefit from the best data-based results. They are more capable than others of transforming data into a valid basis for decision-making and ultimately into insights, which can then be used for new business models, products and processes.⁴⁰

It is precisely these insights that are necessary to convince today's hybrid consumers with customised offers, tell data-driven stores or benefit from the countless opportunities that artificial intelligence has to offer.



INTERCONNECTING DATA

The necessity to handle many different types of data has led to the number of database systems on the market skyrocketing from 162 in 2013 to 359 in 2020.⁴¹ This diversity of databases, in turn, means that highly fragmented, widely ramified data landscapes are still the reality in companies far too often. Interoperability, i.e. the ability to exchange data between different systems without losing information, is one of the biggest challenges in data management.

In order to get a 360-degree view of one's own business processes, all data should therefore be accessible in a uniform format in one single place: the data warehouse. Data has to be converted first to ensure its homogeneity and quality. Using »Extract, Transform, Load« (ETL) processes, data is extracted from various heterogeneous systems, transformed into a predefined structure and loaded into the data warehouse. This is the only way to carry out intelligent analyses and make data-based decisions afterwards.

The interoperability of data also becomes an advantage when data is no longer only exchanged within the company, but also beyond company boundaries. This is because big data itself has given rise to another trend: data marketplaces. According to Gartner, around 35 per cent of large companies will buy or sell data via such platforms by 2022.⁴²

The US giants, for example, operate data marketplaces: Oracle Data Management Platform, Amazon AWS Data Exchange and Google.



They bring together data providers and consumers and are therefore the key to a successful data ecosystem as well as data-driven innovations. However, the marketplaces do not sell sensitive personal data. Instead, real estate insurers, for example, can obtain historical weather data, which they can use to modify insurance conditions based on the geographical region. Scientists can better study climate change because they get access to data records on CO₂ emissions. Moreover, experts from the healthcare industry can obtain aggregated data from historical

clinical studies to accelerate their research activities.

The Berlin non-profit network »Interoperability Network Foundation« has also dedicated itself to the cross-organisational exchange of data. The start-up wants to offer companies a trustworthy and independent platform to exchange data in a business-neutral and tamper-proof way.⁴³

In addition, there are industry-specific data marketplaces that offer targeted information for a certain industry. The InsightCommodity platform, for example, is operated

by the energy exchange EEX and offers information and services related to commodity trading. Amongst other things, this marketplace provides precise weather data and forecasts derived from it, showing the probable returns from renewable solar energy or wind power.⁴⁴

How interconnected is your data?

POST-COOKIE WORLD


The entry into force of the GDPR had already indicated it, the ruling of the German Federal Court of Justice in May 2020 confirmed it: cookies are becoming obsolete. This is because storing user information is now only legally permitted if the website visitor is informed about the use of cookies and voluntarily consents to it. As a result, online retailers have two options: using a consent management tool or switching to cookie-free methods.

Consent management platforms (CMP), e.g. Didomi, TagCommander and Usercentrics, inform users by means of a cookie banner which cookies are set and what they are used for. Online shop operators can use these tools to plausibly explain to their customers why certain cookies are useful: they recommend individual products to users and save the items in the cart. This transparency increases the chance that users will also agree to cookies that are not necessary. The mail order company Bader, for example, uses a CMP to welcome its users

in compliance with data protection regulations and to inform them about what the cookies from the different categories, such as »Advertising« or »Analytics«, are used for. It then gives users the option to select or deselect these cookies.

However, it is not just legislators who are speeding up the demise of cookies, but also browser providers themselves. After Firefox and Safari, Google Chrome also wants to automatically block third-party cookies from 2022 onwards.⁴⁵





For this reason, online shop operators should sooner or later look into alternatives to traditional cookies.

One option is to join login alliances, for example the German EnID foundation, which wants to establish itself as the European alternative to US-American single sign-on providers with its netID initiative. Users can log in to all netID partners with just one click as soon as they have entered their user data once. Many big German e-commerce players, including Zalando, Conrad and Otto,

have already joined this alliance.⁴⁶

Another method of tracking without cookies is called »fingerprinting«. This method uses various parameters to identify customers as clearly as possible based on their operating system, browser version or the plug-ins they use. Advertising IDs are also a widely discussed alternative to traditional cookies. These IDs are available on both Android-based (AdIDs) and iOS-based devices (IDFAs), are natively stored on devices and thus also work across browsers and apps.

All this shows that there are several alternatives. It remains to be seen whether they can be as effective as traditional cookies. It is now up to companies to try things out in order to find the right solution for the future.

How do you track the activities of your users?

SEGMENTING WITH CLUSTERS

John Doe, 33 years old, married, two children – for a long time, it was precisely those characteristics of the average buyer that formed the basis for marketing campaigns and personalisation strategies. Such buyer personas are typical but fictional representatives of a real target group. Demographic characteristics and purchasing behaviour are used to create them. However, the question is: is the traditional persona model still valid today?

Let us take a look at Frances Free: she is 22 years old, a student and single. In her free time, she is involved in Fridays for Future, she does not eat meat and avoids using plastic products. Nevertheless, a budget flight to Portugal or a t-shirt from a fast fashion brand occasionally end up in her digital shopping cart. Frances' lifestyle is just one example of how customers no longer fit in with prototypical patterns so easily.

It is rather flightiness and inconsistent decisions that characterise human behaviour. These contradictions can be observed among all customers, sometimes united in one person or in an entire target group that only seems to think in the same way and buys the same products.

What is required to convince today's hybrid consumers with personalised offers sounds simple at first: data – and it is not the qualitative data from interviews or surveys that is frequently used to create personas, but rather specific figures on sales, return rates or purchasing behaviour, which serve as the basis for deriving concrete added value using an approach known as »clustering«.

For this purpose, existing data is divided into clusters using an algorithm. Within these segments, customers are as similar as possible; between the segments, they

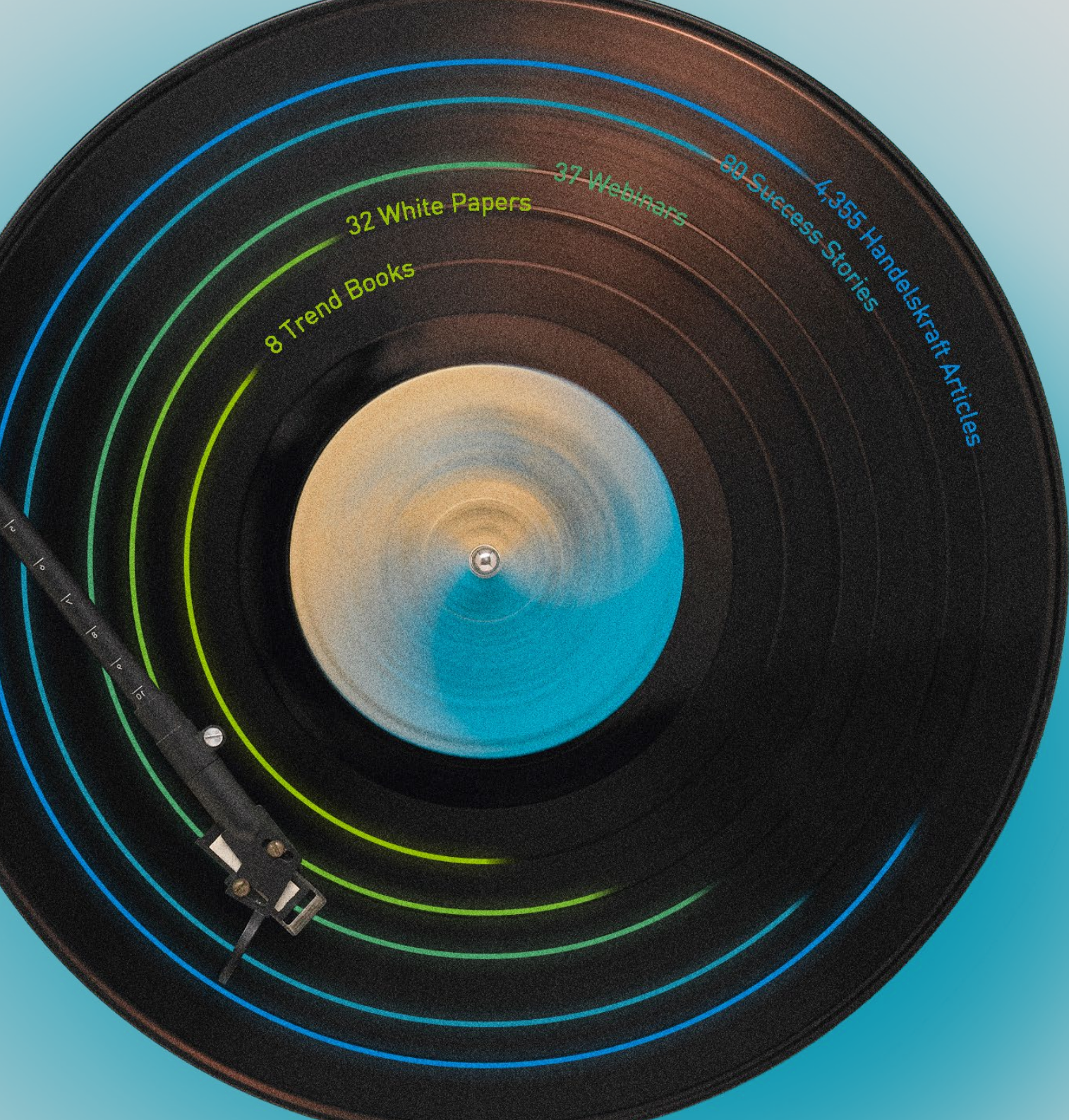
are as different as possible. The advantage is that clustering takes into account far more attributes than the traditional persona model. Objective segmentation of customers based on metric distances provides a new perspective on one's own customers. Customer groups can be separated much more precisely, allowing for more effective marketing measures. However, clustering does not mean that the traditional persona model has had its day: based on clusters, new personas can be created or existing personas can be validated, with the objective findings from clustering being enriched with subjective impressions.

It is advisable to first implement data-driven projects such as clustering on a small scale with a scalable prototype in order to be able to build on the results afterwards. The Swiss online retailer Geschenkidee.ch, for example, also initially implemented the

clustering approach as a prototype. Based on the existing data on purchasing and search behaviour, customers were divided into clustering profiles, which serve as a starting point for personas. In an additional step, the data basis can be expanded to allow for even more profound insights.

How do you cluster your customers?





FROM DASHBOARD TO STORYBOARD

Dashboards clearly present business figures and current KPIs of a company in all kinds of diagrams. According to Gartner, however, they are only used by around 30 per cent of employees that have access to them. Their use is expected to decrease even further in the future.⁴⁷ This is mainly due to the fact that the results presented are not easy to understand but have to be contextualised before employees can act accordingly.

As an alternative, tools that automatically analyse data, present it dynamically and put it into the appropriate business context will prevail in the future. Such advanced analytics tools can, for example, act as personalised feeds or chatbots or process user requests directly via voice commands. This way, all employees have easy access to data-based insights.⁴⁸

One of the pioneers in this field is Narrative Science, an US-American company that developed the

AI-based technology »Lexio«. The tool compiles data in an interactive newsfeed that was specifically developed for business users.⁴⁹ The tech giant Microsoft also makes use of Narrative Science's technology for its business intelligence tool »Power BI«.

However, data must not only become more comprehensible for one's own employees but must also be presented more clearly to the company's management, external partners or clients. The »data-driven storytelling« approach is suitable for this purpose. While classic storytelling conveys information through a story, the method of data-driven storytelling refers specifically to the imparting of data. Instead of just visualising figures and conclusions in pie charts, flow charts or column charts of different colours, information is conveyed through constructed or real stories.

An example of this is the »Wrapped« campaign that the music streaming provider Spotify

presents to its customers at the end of each year. In an individual annual review, users get an overview of their most listened to songs, most popular genres, number of hours spent listening to music, favourite artists and much more. In the Spotify app, listening behaviour is also displayed in the form of a story – as known from Instagram, for example.

The advantage is that data analyses become more comprehensible in the context of a story than if only a raw data set is presented. Just like in an ordinary story, parts of the data set serve as protagonists while others form the frame story. A good data story is contextually appropriate, has a clear focus and uses narrative as well as visual means to make insights easier to understand for clients, employees and the company's management.

What story does your data tell?

A BOT FOR EVERY OCCASION

Companies generate vast amounts of data and information every day – from customer and product data, e-mails and applications for leave to wiki entries. Processing this information and making it available to all employees costs valuable time in everyday working life. It is therefore hardly surprising that numerous start-ups are popping up that want to help automate our everyday business processes in the areas of HR, sales, marketing or customer service.

One of them is »AttendanceBot«, an HR app that can be integrated into Microsoft Teams and Slack. Employees can record working hours for specific projects, apply for leave and call in sick directly in the chat.⁵⁰ »Niles«, an extension for the communication tool Slack, can help companies to become more efficient. Instead of browsing the company's wiki for information, employees can simply chat with the wiki via Niles.

On the one hand, this saves time; on the other hand, it feels to users as if they are asking their questions to a team member.⁵¹

Tech giants such as Microsoft have recognised the potential of these conversational interfaces as well. With »Power Virtual Agents«, companies can develop AI-assisted bots that automatically answer frequently asked questions, solve routine problems or automate tasks in order to reduce the workload of IT support and HR employees. The developed bots can also be seamlessly integrated into Microsoft Teams so that employees do not have to leave their familiar chat environment.⁵²

With »Amazon Lex«, the cloud giant Amazon also offers the possibility to create corporate chatbots that can be connected to a variety of external solutions. This allows employees to access sales figures from the Salesforce CRM system

via chatbot, check the marketing performance via HubSpot and view the support status in Zendesk.

dotSource has also developed a bot to reduce the workload of field service employees. With the help of the voice assistant, account executives can effectively use the journey to the client and, for example, check or edit appointments, contacts and offers. Since the smart application is based on an open source framework, it can be used with popular voice assistants such as Alexa or Google Assistant, but can also be accessed via messenger services.⁵³

How automated are your processes?



NO.

EXCURSUS: AI UNDERGOING A REALITY CHECK

Whether it is the automation of processes or the analysis of large amounts of data: there is hidden potential in every company to make business processes more efficient with the help of AI. A study conducted by Deloitte confirms this: the majority of German companies that already use AI rate the technology as very important or critical to success.⁵⁴

It is therefore all the more surprising that only six per cent of German companies actually use AI technologies. However, around three quarters at least consider AI to be the most important technology of the future.⁵⁵ In other words: the problem is not so much awareness, but rather the actual implementation.

This means it is time for a reality check: how can companies profitably use AI for themselves and in which business areas are AI applications already being used?

COMMERCE

Germany's biggest fashion retailer Zalando uses artificial intelligence to provide inspiration to its customers. For this purpose, the company has developed the Algorithmic Fashion Companion (AFC). In order to train the algorithm, developers used data from Zalando's shopping service Zalon, for which stylists had already put together more than 200,000 outfits. Thanks to machine learning, the AFC can better understand fashion and suggests outfits that match items that customers have recently purchased.⁵⁶

MARKETING

The beverage manufacturer Coca-Cola uses artificial intelligence to analyse its social media channels such as Facebook, Twitter and Instagram.

NO. _____

This enables the company to better understand where, when and how customers consume its products and which of the beverages are particularly popular in which regions – an important element in the company's marketing strategy, considering that more than 90 per cent of consumers today base their purchasing decisions on social media content.⁵⁷

SALES


COMPEON, an online credit broker for business customers, relies on artificial intelligence to support its sales department. All incoming enquiries, contacts and chats are first stored in the CRM system. AI is then used for lead classification: based on various parameters, opportunities are classified according to their priority.⁵⁸

SERVICE

The tradition-steeped company Viessmann, a manufacturer of heating, cooling and ventilation technology, uses artificial intelligence in the field of predictive maintenance. For this purpose, Viessmann evaluates data from various devices and looks for certain patterns that indicate a need for maintenance. If, for example, a heating burner starts to cycle more often than necessary, this indicates contamination. The responsible installer then receives a message and can intervene proactively before the machine breaks down.⁵⁹

Do you already benefit from artificial intelligence?





TECH-
TELMECHTEL

THE DECLARATION OF IT-PENDENCE

Remote work is not an invention from the year 2020. The importance of a strong IT team, modern hardware and well-trained software developers is not a discovery of last year. However, 2020 has been a yardstick for the digital maturity of companies and has given the tech industry a major boost. Arguments in favour of retaining outdated systems are becoming flimsier, while testing and showing courage to adopt new technologies is becoming more and more important.

Future-oriented system architectures are increasingly reducing the manual workload of professionals and are bringing more citizen developers, i.e. users who are not software developers, into the company's ranks. This is good news.

Especially when unexpected incidents occur during the course of a project, know-how spread among many people and systems that even enable coding amateurs to develop and design quickly and well ensure the project's success with less workload and more productivity.

Speed, agility and flexibility are more crucial than ever when it comes to implementing digital projects – and the technology world is responding with appropriate tools and trends. Whether it is DevOps, microservices, log management, JAMstack, low-code platforms or hybrid clouds: a democratisation of technology is noticeable, which ensures more empowerment and freedom – for users, but also with regard to the procurement of hardware.⁶⁰

You no longer commit to large one-off purchases but keep your finger on the pulse of time – just like the technologies and devices themselves – and, above all, remain flexible. Leasing instead of buying, updating on demand instead of missing out on innovations is the name of the game in digitalised companies – whether it is about equipping employees in general or procuring special equipment.

All these developments make sure that both core business and unforeseeable restructurings can be implemented quickly and with little risk.

DEVOPS AS TECH HYBRIDS

Four out of five companies in Germany rely on DevOps.⁶¹ The idea behind this is to transfer agile methods from software development (Dev) to the IT area (Ops) and to connect standard models for software development and IT operations with each other. DevOps is neither a tool nor a method. It is rather a combination of corporate philosophy and strategy that builds on collaboration, eagerness to experiment and willingness to learn in order to optimise processes in software development and system administration – principles that are also part of the corporate culture of modern companies beyond these areas.

At the heart of the DevOps approach are employees. If one does not know what the other does or needs, it does not matter how good the code and how efficient the

server is. In digital projects and processes, it is not only systems that need to communicate with each other, but also the people responsible. This way, mutual exchange, understanding of and appreciation for each other's tasks ensure more efficient collaboration between developers and IT employees as well as higher quality of products and service⁶² – true to the slogan »What can Dev do for Ops and what does Ops need from Dev?«

Modern, successful companies are therefore no longer just companies with agile development teams,





but also with an agile IT department.⁶¹ Ideally, employees will turn into tech hybrids who combine the best of both areas in one person. In the broadest sense, an idea and a management strategy thus also become a DevOps resource without which neither digital projects can be run, nor innovations can be driven forward. The combination of development and IT increases not only the quality but also the speed with which new solutions are created and implemented.⁶³

PRECITOOL, the expert for precision tools, made this experience as well. As part of the modernisation of its system architecture, a project

group of the B2B joint venture relies on DevOps in combination with Kubernetes. It is an open source system that can provide cluster infrastructures from the cloud as code using a package manager. Developers make use of these packages depending on the application scenario, for example to test new features without having to rent physical servers or exceeding server capacities. This significantly accelerates the development process and also allows for flexible adjustments or quick exchange of tested systems during the course of the project.

How hybrid is your tech team?


TECHNICAL BUSINESS MONITORING

Customers expect lightning-fast load times, high-performance online shops as well as individual product and service offers. Therefore, it is not only flexible developers and IT employees that are required in B2C and B2B commerce, but also flexible solutions. Agile software architectures based on microservices offer exactly this flexibility. They enable development teams to implement different processes at the same time. If the platform is to be adapted or extended with additional functionalities, independent microservices are used to do this with little effort and within a reasonable period of time.

The publishing house C.H.Beck faced the challenge of displaying more than 17 million products in just as many categories in an online shop. To achieve this, about 500 microservice instances and up to two million updates ensure high performance and stability on a daily basis.⁶⁴ However, many distributed applications also mean an incredibly large amount of log data. The larger the application, the larger the amount of data on error messages and warnings. Manual troubleshooting is virtually impossible.

However, evaluable data is a basic prerequisite to remain flexible and successful. Log management platforms support development teams in monitoring by automatically making all log data evaluable via a central interface and acting as a search with a filter function. This makes it much easier to analyse and evaluate large amounts of error messages.



A stylized illustration of a hand holding a magnifying glass. The magnifying glass is focused on a server icon, which is part of a larger set of icons including a document and a database. The background is a dark teal color with abstract geometric shapes.

Log management platforms can be run both in the cloud and on-premise, are easy to implement as well as extremely flexible and scalable. Dashboards with intuitive design elements in tools such as Logzio, Azure Application Insights or LogDNA make it possible to focus on relevant metrics, for example

peak loads. This allows developers to concentrate on the essentials instead of spending their precious time exclusively on troubleshooting and bug fixing.

Those who use innovative, flexible solutions gain a clear competitive advantage, meet customer demands and can react to unforeseen changes in good time. However, this flexibility is only maintained if the framework conditions are right and do not slow down processes, innovations and the

work of developers, but rather drive them forward in their development. In short: without log management there is no flexibility; without flexibility there is no success.

Which LOGics support your development team?



PERFORMANCE BOOST JAMSTACK

Page load time is a ranking factor. This is nothing new and yet an ongoing topic of discussion – especially since 2018 when Google established page speed as a ranking criterion for mobile devices before accelerating website development and search engine optimisation even further with the Core Update in 2020. If a page takes longer than three seconds to load, visitors will already have left. Even one and a half seconds are only considered average by Google.⁶⁵

Traditional websites are run on a web server. However, running content-intensive websites with high update rates in this way causes slowdowns that can be avoided, increases efforts in terms of security and compliance with data protection regulations and involves enormous scaling costs.⁶⁶

Community content management systems such as WordPress offer many options to create and manage a page easily and quickly without programming effort, but at the same time, this is becoming increasingly complicated due to new plug-ins and features being added all the time.

This architecture can be compared with building a house of cards. The more cards, the more storeys; the more storeys, the more complex the overall construct. If you only build one storey, however, the house of cards is finished faster – simple but safe.⁶⁷ In the tech industry, this method is called JAMstack. With a combination of JavaScript, API and Markup, it separates front-end and back-end components from each other. Individual pages of a website are not displayed via a server, but via a content delivery network (CDN) in which the respec-

tive HTML files have already been preloaded and are thus ready for retrieval or download before page visitors even ask for them. Companies such as the New York Times that have to publish new content on their website every day use this serverless architecture to increase the performance of their pages. Modern headless content management systems such as Contentful already work with this technology.⁶⁸

For its Dream Supply campaign, Nike needed a high-performance, infinitely scalable website that enables one million users to access content easily, quickly and securely, but also to add content themselves – the website recorded up to 100,000 updates a day. Not only did the JAMstack method stabilise the website based on the

US-American CMS provider Netlify, but it also made it extremely fast with an incredible load time of 0.9 seconds without developers having to put in extra effort with additional servers.⁶⁹

In just a few days, the campaign reached the attention of millions of users, boosted Nike's online sales by 27 per cent and got the corporation almost three million mentions on social media in just 48 hours. Not only did the success of the multi-media campaign culminate in an Emmy Award, but it shows above all that companies can get to the perfect equation with JAMstack: higher speed = better user experience = better Google ranking = more traffic = more sales.⁷⁰

How fast do your pages load?



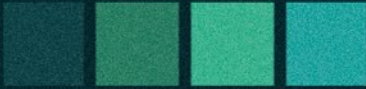
LOW CODE – HIGH SCORE

Implementing software projects quickly and agilely is standard in digital business.⁷¹ According to a study conducted by Bitkom, however, 24,000 vacancies for IT experts remained unfilled in Germany at the end of 2019. Are »coding without code« and »software development without software developers« realistic solutions to this challenge?⁷² At first glance, trends such as no-code platforms (NCD) and low-code platforms (LCD) suggest that this is the case. Although these technologies are no new inventions, they are becoming increasingly popular.

On no-code platforms, prefabricated modules as well as drag-and-drop systems completely replace manually written code.


With low-code platforms, by contrast, it is possible to add content to and customise prefabricated modules through one's own programming as well as to integrate external logics and workflows into the platform and into one's own processes.⁷³

Rockwell Automation, one of the world's largest manufacturers of automation and information solutions for industrial production, relies on Dataflex, Microsoft's low-code platform. All of the company's 23,000 employees are to become developers by using »Power Apps«.⁷⁴




Besides this absolute approach, low-code platforms generally enable companies to optimise processes without lengthy (and expensive) classic software development.

To set up such a platform architecture, however, capable developers are required who write the code for it or review assembled modules. Low-code development tools therefore render neither competent developers nor manually created, high-quality code redundant, but make it possible to reduce workloads and overcome resource shortages via an effective workaround. In addition, efficient and clean platform architectures make internal business processes




and thus projects faster, more flexible and more agile because once a low-code platform, such as Salesforce Lightning, is set up, even less experienced or less code-savvy employees can quickly and effectively implement standard processes.⁷⁵ The software giant Salesforce from San Francisco is considered the pioneer among low-code platform providers. With Salesforce Lightning, companies save up to 25 per cent of the time developers spend building customer-specific solutions.⁷⁶

How time consuming is your development process?





BEST OF CLOUD



Customer focus is a topic that those responsible for IT are increasingly focusing on as well. New technologies, the flood of data and offers tailored to customer needs increase the demands on the flexibility and resilience of IT system architectures. As a consequence, hybrid cloud models are becoming increasingly important. According to a study conducted by IDC, 87 per cent of German companies already operate hybrid cloud environments or plan to do so in the near future.⁷⁷ IBM even estimates their global business potential to be as high as 1.2 trillion US dollars.⁷⁸

TROX, the global market leader in the development, production and sale of components, appliances and systems for ventilation and air conditioning, already relies on a

cloud-based e-commerce solution. This solution combines the existing on-premise systems with the flexibility and scalability of the cloud.⁷⁹

By connecting different clouds and services, companies benefit from increased data security and independence through private clouds on the one hand and from the flexibility and scalability of public clouds on the other hand. Customers appreciate the faster load times and high website stability, even during peak loads. In addition, they also know where their data is stored.

Moreover, the introduction of the 5G mobile communications standard will provide a boost to edge scenarios and is thus considered the next chapter in cloud computing. Edge computing means that computing power is provided as close as possible to the point of data generation. Therefore, more

and more companies want to integrate it into their cloud strategies. Hybrid clouds continue to be the starting point for the most important data and back-end features, while real-time edge analytics supports them exactly where data is generated.

This way, retailers benefit from faster insights into consumer trends, for example, while manufacturers can carry out preventive maintenance on equipment and production facilities.

How flexible is your system architecture?



LEASING INSTEAD OF BUYING

If companies had not already realised it before, the fact that employees collectively switched to working from home was a real eye-opener for them: modern, reliable hardware is simply indispensable. Large, digitalised companies need a lot of it. Therefore, one of the main tasks of a competent IT department is to always equip all employees with modern devices and technologies – a mammoth task given the record increase to 1.2 million employees in the digital industry.⁸⁰

In March and April 2020, the demand for hardware also increased beyond this industry. According to a study conducted by the German health insurance company DAK, around one third of employers had to invest in new technologies at short notice to enable their employees to work from home. The need to invest in

future-proof hardware and technology should not be underestimated. However, constantly changing innovation cycles also result in many devices being outdated before they even pay off.

By contrast, it is worthwhile to make leasing an integral part of financing strategies. Not only does this approach allow companies to save all the initial acquisition costs, but it also offers them enormous advantages.

With leasing offers such as those from the first German leasing online shop cno.de, companies can pay small monthly instalments to invest in new technology whenever it is required. »Invest as you need« and »Pay as you earn« are the keywords here: instead of having to recoup high acquisition costs over time, companies have the option of paying off leasing instalments with revenue they make while using the equipment. The instalments are

a constant and thus reliable cost pool, preserve liquidity and can be fully offset against tax as business expenses.⁸¹

Not only does leasing instead of buying regularly provide companies with modern hardware and technology at lower costs, but it also improves one of the aspects that is probably most important for future-proof digital business: flexibility.

Are you still buying or already leasing?





FACTS

&

FIGURES

TRUST IS GOOD, FIGURES ARE BETTER

Around 4.8 billion people worldwide use the Internet.⁸² Therefore, it seems logical that digitisation is affecting everyone by now, and no longer just traditional IT companies. Moreover, digital is the new normal – across all industries. New business models are emerging non-stop. E-scooters are shared via apps, languages are learned online and dishwasher tabs are reordered via voice assistants. However, the industry is changing as well: construction machines are automatically tailored to customer needs, robots assemble them and entire factories are intelligently networked.

Nevertheless, there are considerable differences in terms of digital maturity. Data management in particular makes these differences

visible. After all, thinking digitally is one thing, but acting in a truly data-driven way is another – and yet one is not possible without the other. This means that it is all about the following question: how well do companies harness their data, AI or BI?

A lot has changed since 2020, and not only from an entrepreneurial point of view. Since people spend more time at home, customer needs and demands regarding shorter delivery times, tailored payment methods and digital shopping experiences with all senses are also changing. The increasing advertising spend on social media ads also paints a clear picture: e-commerce has become experience commerce and thus even more personal and individual;

the demand on digital experiences has become higher overall. The need for hybrid workplaces is also growing. What initially felt like an experiment for companies and employees became the new normal within a short period of time – just like video conferences and e-learning courses.

Data is important, but data alone does not provide any insights. The following chapter aims to correlate data with facts and to examine current indicators of consumer behaviour as well as macro data of national and international markets – markets driven by 4.8 billion people who use the Internet.

DIGITAL EXPERIENCE



Half

of all B2C consumers would defect to the competition after just one bad experience with a company.⁸³



68%

of customers are upset when their call is forwarded between departments.⁸³



50%

of B2C consumers worldwide want companies to contact them on the channels that they already use for their private communication.⁸³



28%

expect an answer in less than five minutes when chatting with a company.⁸³



62%

see product attributes such as origin or manufacturer as the most important purchasing criterion.⁸⁴

This is also reflected in Google search interest:⁸⁵

2016: 15%
2020: 85%



71%

would shop online more often if they could use AR to do so.⁸⁷



A 79% reduction

in waiting times can be achieved if customer service benefits from modern CRM platforms.⁸³



97%

of manufacturers and retailers name product information as a key factor in improving customer experience.⁸⁴



1%

of retailers use AR or VR for their online shop.⁸⁶



Less than 30%

of companies offer self-service, live chat, social messaging, in-app messaging, bots or peer-to-peer communities.⁸³

CUSTOMER NEEDS

Worldwide



55%

of consumers want companies to act according to their values and principles.⁸⁵



74%

of consumers want companies they interact with to treat their employees well.⁸⁵



58%

of consumers want companies to focus more strongly on sustainability and the environment in 2021.⁸⁵



54%

of consumers want to order online more often in the future.⁸⁸



A 36% increase

in the demand for everyday goods in e-commerce was recorded in the first half of 2020 as compared to 2019.⁸⁸

In Germany



75 mil.

Girocards have a contactless payment feature (out of a total of 100 mil.).⁸⁹



16%

of consumers have already made a contactless payment with their smartphone in a shop.⁹⁰



Half

of the people using contactless payment methods are under the age of 34.⁹¹



93%

of consumers state invoice as their favourite online payment method.

87% PayPal
78% direct debit
70% credit card
69% advance payment⁹⁰



90%

of German PayPal users have linked their bank account to their PayPal account, only 30% have linked their credit card.⁹⁰



25%

of customers have already paid via SEPA Instant Payment.⁹⁰

PAYMENT IN GERMANY

MARKETPLACES IN THE DACH AREA



173

online marketplaces existed in 2020.
In 2014, there were only 81.⁹²



50%

of the total e-commerce revenue is
generated by online marketplaces.⁹¹



The largest

product-specific group is Fashion
& Lifestyle, followed by Consumer
Electronics and Home & Living.⁹¹

One third

of marketplace operators also sell
goods and services on their own
platform.⁹¹





80%

of online marketplaces are B2C-oriented.⁹¹



39%

of online marketplaces have integrated a product review feature.⁹¹



Top 3

of the German online shops with the highest revenue in 2019:

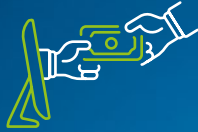
Amazon (10.49 bil. euros)
Otto (3.36 bil. euros)
Zalando (1.62 bil. euros)⁹³



19%

growth in revenue was recorded by online marketplaces in the first quarter of 2020 as compared to the first quarter of 2019.⁹⁴

E-COMMERCE



95%

of all purchases will be made online by 2040.⁹⁵



62%

of all consumers cancel an ordering process because the shipping costs are too high.⁹⁵



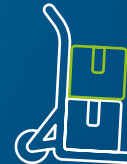
43%

of online shoppers make purchases from bed.⁹⁴



2 times a month

is the average amount of orders that Germans place online.⁹⁴



55%

of German consumers expect next-day delivery if they order by 3 p.m.⁹⁵



€137.70

is the average amount Germans
spend per order.⁹⁶

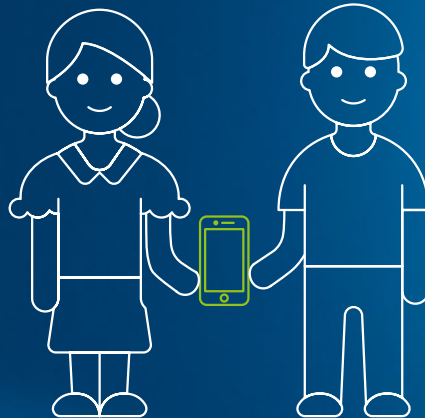
Europe: €129.10



More than 40%

of German consumers expect same-
day delivery if they order by 2 p.m.⁹⁵

78% of German consumers

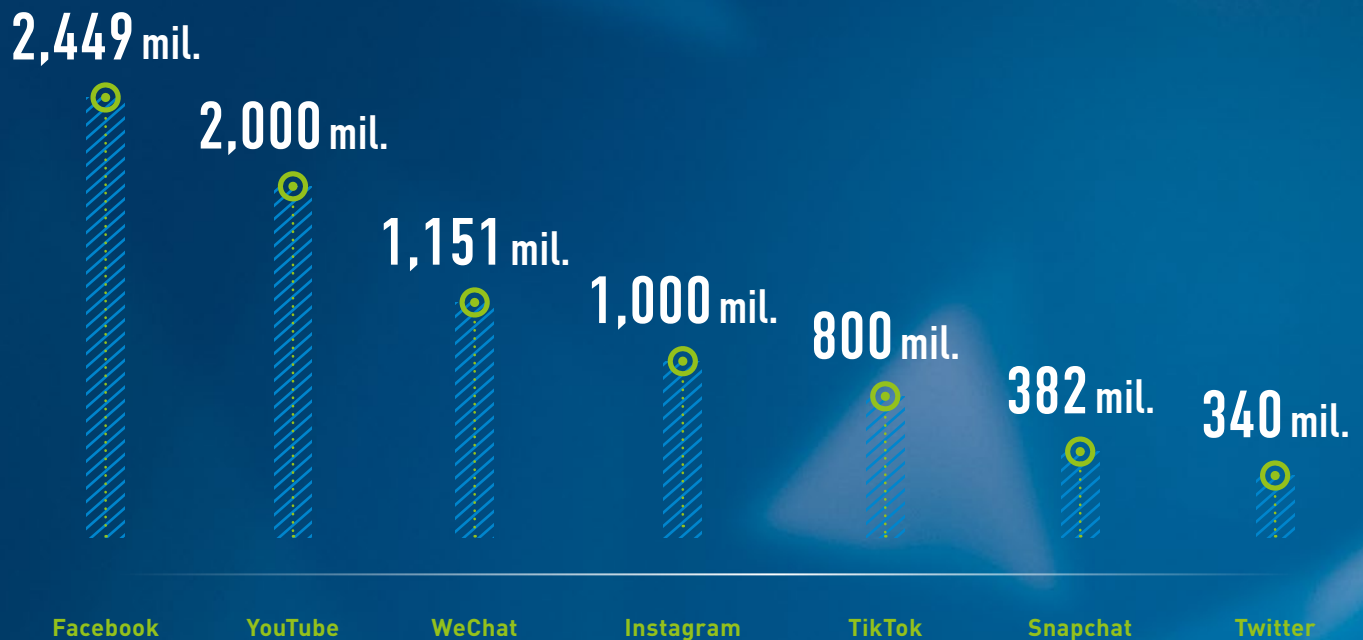


accept a delivery time of
2 to 3 working days.⁹⁵

prefer to be informed about
the current shipping status
by e-mail.⁹⁵

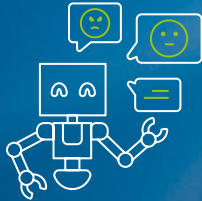


SOCIAL COMMERCE



MONTHLY **ACTIVE** USERS WORLDWIDE⁹⁸

SOCIAL COMMERCE



Only 1%

of B2B companies already use messenger bots.⁹⁷



55 applications

are submitted on LinkedIn every second.⁹⁹



1.5 bil. euros

were spent on social media ads in Germany in 2020.¹⁰⁰



A 91%

increase in the number of live streams on LinkedIn has been recorded since March 2020.⁹⁸



98%

is the opening rate of SMS messages – it is only 20% for e-mails.¹⁰¹

Only 5%

of companies worldwide already use TikTok.⁹⁷

PERCENTAGE OF COMPANIES THAT USE **SOCIAL MEDIA**⁹⁷

(Per Channel)



HYBRID WORKING WORLD



61%

of German employees worked from home in 2020. Before the pandemic, it was only 39%.¹⁰²



80%

of German employees had the option of working from home in 2020.¹⁰¹



89%

of employees in the financial industry were able to work from home – in the agricultural and transport sectors, it was only 37%.¹⁰³



65%

perceive the freedom of having a hybrid workplace as very pleasant.¹⁰⁴



57%

find it easier to work creatively from home than in the office.

61% think it is better to carry out organisational tasks (e.g. meetings with colleagues) in the company than from home.¹⁰³



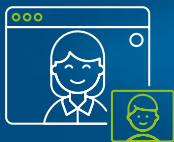
40-60%

time can be saved with e-learning as compared to offline learning.¹⁰⁵



Switzerland

was considered the most innovative country in the world in 2020, closely followed by Sweden and the USA. The research and development sector made a value-added contribution of one per cent to the total economic output.¹⁰⁷



21,598%

more enrolments for online courses related to teleworking were recorded in 2020 as compared to 2019.¹⁰⁶



98%

of companies consider further training opportunities important for their future success.¹⁰⁸



61%

65%

DevOps

75%

of all companies use at least four low-code tools.¹¹¹

Top 5 Measures for Successful Digitalisation¹⁰⁸

1.

Forming interdisciplinary teams

2.

Hiring employees with know-how

3.

Expanding cloud capacities

4.

Using intelligent technologies

5.

Expanding data analysis and data networking



1 out of 3

companies already use multi-cloud computing.¹¹⁰



71%

of all IT services are cloud-based.¹⁰⁸



78%

of companies consider mobile access to IT resources the biggest advantage of public clouds.¹⁰⁹



1 mil.

employees in Germany work in the field of IT services and software.¹¹⁰

What German companies value when selecting a **cloud service provider**

96%

GDPR compliance

88%

A transparent security architecture

77%

Encryption of their cloud data¹⁰⁹

AI, BI & DATA BUSINESS



73%

of German companies consider artificial intelligence the most important technology of the future.¹¹²



95%

of German companies expect AI to be most likely used in the area of automated responses to enquiries and complaints.¹¹²



1 out of 7

companies already invested in AI in 2020.¹¹²

Which of the following activities is AI already being used for?¹¹²



69%

Targeting/personalised advertising

40%

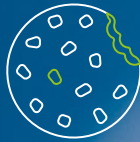
Automated booking of payment transactions/responding to enquiries and complaints

32%

Price optimisation

1%

Development of new products



41% of users

do not read cookie policies and simply accept them.¹¹³



54%

of companies believe that cloud-based BI will be highly relevant in the future.¹¹⁴



Five times faster

decision-making in companies is achieved through data analysis.¹¹³

By 2025, the amount of digital data generated worldwide each year is estimated to be 175 zettabytes. That is

175,000,000,000,000,000,000,000 bytes

– eight times as much as in 2017.¹¹⁵



FUTURE

RETAIL

... IS DIGITAL-FIRST RETAIL

While it was unthinkable 20 years ago and still an exception ten years ago to quickly make a major purchase such as a freezer online, it is now just as natural as shopping shoes at Zalando. Purchasing behaviour is changing – and so is the place of purchase. Every device becomes a shop. Every store turns into a physical extension of digital.

Customers no longer think in online and offline terms. They simply expect availability and a convenient shopping experience as well as the freedom to experience both on all channels in equally good quality. The same goes for the price. »Get the online price here« is no longer enough as a temporary in-store promotion. Users expect stable prices, regardless of the place of purchase. They no longer differentiate between on- and offline but expect a digitised space.

Click and collect, cashless and contactless payments are a good start, but still not standard everywhere. Retailers who fail to finally take a cross-channel approach will have an increasingly difficult time in the phygital (physical-digital) world because consumers have been using omnichannel for a long time. They understand this independence as an essential part of their digital freedom.

Therefore, it is more important than ever for brands, retailers and manufacturers to adhere to the classic virtues of successful retail in order to allow for this freedom: being at the right place at the right time with exciting content, suitable products and interactive services, convincing potential customers within a few seconds and delivering to them as quickly as possible. All this is only possible under one premise: a digital-first approach to retail is a must.

RETHINK RETAIL

In 2020, Andreas Schobert, CTO at HORNBAACH, said: »The Internet is the best thing that could have happened to us.« (»Das Internet ist das Beste, was uns passieren konnte.«) This positive attitude is also reflected in general consumer behaviour.¹¹⁶ It is not about the traditional competition between on- and offline, but about a new connectivity of physical and digital. The increasing acceptance of touch-points as well as the dominance of mobile and contactless payments speak for themselves: customers like digital things – even in stores.

This shows that connected retail is more than just click and collect. The number of digitised stores is increasing. Video walls, touch-screens, interactive mirrors and intelligent fitting rooms like those at Mango or Macy's are only the beginning. What the future of digitised brick-and-mortar stores could look like can be seen in Paris,

where both adidas and Nike offer visitors fully digitised experience worlds.

Via the augmented reality app »For The Oceans«, which was developed by the Munich-based start-up eyecandylab, visitors of the adidas flagship store in the French capital become an active part of sustainable production. They collect plastic waste in a virtual ocean and experience how it is transformed into the latest shoe in the collection.¹¹⁷ In Nike's House of Innovation, customers find themselves in a different world, too.¹¹⁸

On four floors and 2,400 square metres, the Nike Fit AI provides personalised advice and support – from the right sports bra to the right shoe size.

Cashierless stores such as Amazon Go are already common in the USA and Great Britain. In Germany, however, the concept has been limited to pop-up stores so far.¹¹⁹

Self-service checkouts like those at IKEA or self-scanners as offered by Netto and HORNBAACH are steps in the right direction and improve one of the main shortcomings of brick-and-mortar shopping: long queue times.

The US-American department store and mail order chain Nordstrom, however, has integrated waiting time into a perfectly orchestrated omnichannel experience: customers enter stores that do not have any items – the Nordstrom Locals – and select their favourite products via an app. These are then delivered to the store from surrounding warehouses and shops. The waiting time can be used for a drink at the bar or a treatment in the beauty area. Experience and service instead of sensory overload and stress.

How digital is your retail concept?



NIKE HOUSE OF INNOVATION 上海/001



NIKE HOUSE OF INNOVATION 上海/001



NIKE HOUSE OF INNOVATION 上海/001



QUICK COMMERCE

The average delivery time for online orders is currently three to five working days. According to a survey carried out by Shoplupe, consumers still found this acceptable at the beginning of 2020.¹²⁰ Does this mean that the hype around same-day delivery is over?¹²¹ Yes and no. This is because something that no one had

expected followed shortly after this survey: the time when people all of a sudden only ordered online, everything, every day and quite often several times a day. E-commerce has established itself as an additional supply infrastructure, especially for everyday products, and it has done so in the long term: according to a survey conducted by

the bevh (the Federal Association of German E-Commerce and Mail Order Business), one in two people want to order more groceries, drugstore products and medication online in the future as a result of these experiences.¹²²

The fact that you can order everything is one thing. The fact that everything arrives as quickly



as possible is another. Same-day delivery is actually outdated because something quicker already exists: same-hour delivery. Delivery Hero, Amazon and Carrefour, the pioneers of the quick commerce era, deliver household goods to their customers' doors within 15 to 30 minutes.¹²³

However, ultra-fast delivery is not only intended to replace quick shopping trips, but is also well on its way to establishing convenience and hyper speed as the status quo.

The crisis has revealed both the necessity and the advantages of quick commerce. Platforms such as Delivery Hero have benefitted enormously and recorded a 98 per cent increase in orders in the

second quarter of 2020 (10.5 million orders as compared to 5.3 million orders in the first quarter of 2020). More than 20,000 retailers are already part of the world's leading local delivery platform, and the number is growing. These include supermarkets and pharmacies, but also cafés and flower shops.

Deliveries are made from 100 Dmarts (also known as cloud stores) using two-wheeled vehicles. This enables the couriers to pick up ordered products from Dmarts near the customer on demand and to deliver them quickly. 400 more of these local delivery-only warehouses were planned and built worldwide in the second half of 2020 alone.¹²⁴

Start-ups such as bex technologies from Stuttgart show that quick commerce has also arrived in the construction and trade industry. The data-driven B2B service for

building materials takes over the entire process from ordering to delivery, for example directly to the construction site – within two hours.¹²⁵

At Amazon, all signs are pointing to ultra-fast as well, or rather: »ultra-fast and fresh«. This way, Amazon Logistics is massively driving forward its service via Amazon Fresh and Prime Now – not only in Great Britain, but also in Germany.¹²⁶ Specifically for this purpose, the online giant is building a new 30,500 square metre distribution centre in Emden, East Frisia.¹²⁷

A typical »last mile object« that – just like the success of Delivery Hero – speaks for itself: welcome to the next generation of e-commerce.¹²⁸

What do you do to quickly get your products to customers?



EVERYTHING IS POSSIBLE, SERVICE IS A MUST

There are currently 173 online marketplaces in the DACH area (Germany, Austria and Switzerland). In 2014, there were only 81.¹²⁸ Not only has the new marketplace world become denser, it has also become more complex. Compared to 2015, for example, there is a remarkably high proportion of companies with a dual role, namely almost 30 per cent. Breuninger, Real and Douglas are among these platforms that are marketplace and online shop at the same time while also operating branches.¹²⁸ Not only does this create competition within the own ranks, but it also increases the overall pressure to hold one's own in the conglomerate of superlatives. The widest range of products, the best price, the fastest logistics – all these aspects are important, but service is indispensable. More specifically: service through interaction.

As a study conducted by ecom consulting and gominga shows, interaction with customers usually does not take place on market-

places. This is disastrous in the age of the attention economy.¹²⁸

The situation is different at OBI and hagebau: with @createbyobi or the »Nachgefragt bei hagebaumarkt« (»Ask hagebaumarkt«) podcast, the two companies integrate DIY tutorials and consulting into their marketplace strategy as special service concepts. With its digital competence centre, the experience gift provider mydays is developing a new business model and advises companies on the digitisation of events.¹²⁹ In terms of service through interaction and customer focus, everyone can learn from concepts like these. They remain in the memory and create trust.

If customers tolerate shortcomings in terms of customer trust at online giants like Amazon in exchange for a wide range of products and quick delivery, most other marketplaces have to earn customer affection anew every day.¹³⁰ New brands or niche players cannot rest on a newcomer bonus any more than established players can rest on their name.

Given the density and rapid growth of the marketplace world, specialisation should be the goal: specialisation away from products towards services. ManoMano, a pan-European marketplace for home and gardening products, impresses with its own live consultation system. Picnic, a prime example of an e-food business, offers free delivery, develops its own infrastructures and thinks and acts mobile first just like the beverage suppliers Durstexpress and flaschenpost. However, »mobile« is no longer to be understood as a device, but as a role-model service extension. After all, if you want contact and interaction with customers, you will only be able to reach them via mobile services in the future.

How interactive is your service concept?



REACT LAND

1		Tao	65919 KM
2		Jessie	65918 KM
3		Vivian	65918 KM
4		Jane Hu	65917 KM
5		Ming	65916 KM



RETAILIFICATION

Exclusivity is great. Those who give customers the feeling of being part of an elite circle gain an advantage in the competition for attention and loyalty. This is something that the big names in retail have long recognised. After artificial scarcity in pop-up stores and limited editions of new collections, companies such as Coca-Cola, Nike and Kenzo are focusing on a trend that redefines exclusivity as a strategy for acquiring customers: gamification.

It is about the integration of gaming mechanisms into one's own business processes, websites and marketing campaigns. Companies take advantage of consumers' gaming instinct and competitive zeal to push new products and acquire customers.

Shopping turns into a game. For the product launch of its limited »Sonic« sneaker, the French luxury brand Kenzo created a ground-

breaking gamification shopping experience: Kenzo Shopping League.¹³¹ It is considered the world's first online shop for gaming in retail. A large number of players took part, competing against each other for the chance to buy one of the strictly limited 100 pairs of luxury sneakers.¹³²

Nike also took advantage of the gaming instinct of potential customers and gave them the opportunity to extensively test the new »React« sneaker in a virtual city. As a result of their experiences in Reactland, almost half of the players built up so much trust in the product and the brand that they became customers as well.¹³¹

Coca-Cola, in turn, created a throwing game in which supermarket shoppers in Beijing and Singapore could participate via their smartphones. Those who hit the most virtual ice cubes in a glass of Coke were rewarded with prizes

and loyalty points. This way, the branding expert Coca-Cola not only succeeded in attracting supermarket visitors directly at the point of sale, but also in standing out from the competition at that very point.¹³¹

There are many ways to draw customers' attention to products and services with extraordinary campaigns and to offer them unique shopping experiences. Now it is time to make use of promising markets such as gamification for one's own retail strategy as well – a market that is expected to grow to 34 billion euros by 2024.¹³³

How playfully do you acquire customers?

THE LOYAL FAMILY

It all started in 1993 with Miles & More, which is now the largest frequent flyer and rewards programme in Europe. Almost 30 years later, there is a large number of such bonus programmes, which are designed to turn customers into repeat buyers by offering something extra. There is hardly any fashion retailer that does not rely on VIP clubs. Whether it is ESPRIT, H&M or About You: customers who create an account enjoy benefits such as private sales and exclusive discounts.¹³⁴

Bonus programmes outside of the fashion industry, however, not only take advantage of the hunting instinct, but also respond to a trend that has become part of everyday life in almost all domains: self-optimisation. The community programme of eBay Kleinanzeigen shows how to successfully respond to the pursuit of improvement. Users get their own public ranking based on their behaviour on the C2C platform. This includes parameters such as response time, response rate or the quality of the transaction itself. On eBay and

Vinted, users not only want to get rid of things that have been sorted out, but they also want to achieve top marks in the rating system.

Less public but no less effective is the self-optimisation statistic on Audible, the Amazon subsidiary for audiobook streaming. Depending on how long and when users listen to Audible audiobooks, they can collect trophies such as »Wochenendheld« (weekend hero) or »Marathonläufer« (marathon runner). Audible users can share the results from their personal dashboards, but it is not so much about competition – unlike the tracking app Endomondo provided by the sportswear manufacturer Under Armour. This app acts as a coach, supporting over 20 million users in their sports activities, setting goals, measuring successes and comparing them with the digital fitness community.¹³⁵

Sporting activity also plays a key role at the Russian Alfa-Bank. The financial institution takes advantage of the self-optimisation trend and rewards its customers' urge to be

active with attractive interest rates. Once users have connected to Alfa-Bank via fitness trackers like Fitbit, they can decide for themselves how much their sweat is worth to them. Depending on the number of steps or metres run, they pay between one and 50 cents into their fitness account – so the more they run, the more they save.¹³⁶ Alfa-Bank's customers do something for their health and the company positions itself as a mobile, attractive everyday companion.¹³⁷

The desire to live healthier, learn more and develop further, but also the urge to make this measurable through self-tracking have become indispensable in our society. Those companies that respond to these user habits with suitable offers not only promote customers' desire for self-optimisation, but also create loyalty to their own brand. Ultimately, this gives companies access to valuable data that is essential for optimising their own business processes.

How do you reward your customers?

9:41

≡ The Loyal Family



◇ STRATEGY

◇ INNOVATION

◇ CREATIVITY



SPORTSOURCE-STAR
0/3



TREND BOOK HERO
3/3



COFFEE ECSTATIC
15/35



PARTY ANIMAL
20/20



TECH-VIRTUOSO
40/40



KICKER-CHAMPION
1/15



TEAMSPIRIT-UOSO
3/5

Senior

Goal

Professional

Achieved

Junior

Achieved

Newcomer

Achieved

BLACK

LIVES

MATTER

HUMANISING BUSINESS

Tesla produces ventilators instead of electric cars, Apple produces masks for medical staff, Jägermeister supplies alcohol for disinfectants. Doctors, paramedics and nursing staff can shop at REWE (German supermarket chain) at a discount for three months.¹³⁸ McDonalds and Aldi enter into a cooperation to minimise the threat of unemployment and prevent bottlenecks in the retail sector. These are all initiatives that emerged during the crisis, but there is much more to them than that.¹³⁹ These are high-profile actions that show how important statements and transparency are – for brands and their image and thus also for customers and their loyalty.

Brands that support consumers and employees in difficult situations but also create societal added value in addition show the public that they are backed by responsible companies. There is hardly any advertising campaign that does not touch on humanity or sustainability – be it Aldi's video advertising

featuring user-generated content that calls for #gemeinsamgehtalles (#everythingispossibletogether), Lavazza's humanising business campaign »Good Morning Humanity« or Nike's viral »For once, Don't Do It« video in connection with the #BlackLivesMatter movement. In addition, more than 1,000 companies joined forces under the slogan #StopHateForProfit in the middle of last year to take action against hate speech and discrimination on Facebook.

Big players such as adidas, Coca-Cola, Starbucks and Levi's as well as software giants like Microsoft and SAP refrain from advertising on the social media platform. Since 99 per cent of Facebook's revenue comes from advertising, the solidarity boycott hits the Zuckerberg empire hard.¹⁴⁰

2020 made the shift in the paradigm of high-profile do's and don'ts even more tangible and revived the call for »legislative brands«, i.e. brands that take a stand. Consumers not only expect transparent, conscious use of resources, but also sustainable statements and

actions for society as a whole. This is rewarded with trust, loyalty – and consumption.

Humanising production, marketing and sales as in the above examples is indeed easier for big names thanks to higher PR and HR advertising budgets. However, the trend is also an opportunity for smaller brands to make a name for themselves. For young D2C and community brands, such as the Instagram fair trade label Hello Body or the fair fashion brand ARMEDANGELS from Cologne, it is inherently easier to really unite all employees and brand ambassadors behind them in an authentic way. Positioning oneself and working hard to earn the trust of customers is therefore not a question of company size, but a question of strategy.

What do you do to earn the trust of your customers?

FULL TRANSPARENCY

Traceability, clear identification and transparency have become an issue that affects society as a whole. Whether it is supply chains in logistics or chains of contact in society: data-driven thinking and action as well as making everything transparent as a matter of course are part of everyday life.

For companies, this means that the pressure is growing to deal with data – but also with all other processes – even more responsibly and transparently. After all, both consumers and partners not only want to know what is happening to their data; they also want to be able to trace and track who they are dealing with. They want to know where products come from, how sustainably packaging and shipping are handled and what production and working conditions are in place.

The fact that the topics of sustainability and conscious consumption are currently more relevant than ever in the fashion business is shown not least by the growing success of platforms for products from sustainable production such as Avocadostore or the merger of the fashion giant H&M with Sweden's largest second-hand online shop Sellpy.¹⁴¹ Making sustainability visible is at least as relevant to companies as implementing it. There is hardly any company that does not have a »green landing page«, i.e. a section on sustainability. Icebreaker, a Dutch brand for sustainable outdoor clothing, even completely integrates the topic into the »Our Story« section of its online shop. This section allows users to look at the company's vision and mission and trace the entire value chain – from the sheep breeders to the factories.¹⁴² Those who buy an item will find a direct link on the

label to the sheep that gave its wool for it – and this has been the case for years.

In turn, the industry giant H&M managed to go from being the epitome of fast-fashion diabolism to number one in the Fashion Transparency Index in 2020: Fashion Revolution, the initiative behind #WhoMadeMyClothes, examined the transparency of the 250 largest brands and retailers worldwide in the area of social and environmental sustainability.¹⁴³

The plastic bags of the Indonesian social start-up Avani Eco are transparent as well – in both senses of the word. #ImNotPlastic is boldly written on the bags, which are made from cassava. Having already been used as a plastic substitute in more than 20 countries, they even became part of spectacular collections at Jakarta Fashion Week.¹⁴⁴ About You uses a similar concept.



The mailing bags of the German platform tell their own story to recipients: »I was a rubber duck once« or »I was given a second chance«.

About You also impresses with an innovative HR strategy: in a very private corporate video, the fashion retailer shows that »About Us« should be more than just the boilerplate for products and services. In this video, users see the faces and stories behind the brand, get insights into how and where the teams work and find out how the brand positions itself or gets involved. Not only does this provide them with information, but it also builds a relationship and trust with the brand.

How transparent is your company?



SOCIAL

COMMERCE

FEEDS BECOME SHOPPABLE (ONCE AGAIN)

There are 2.5 billion monthly active users on Facebook, 2 billion on YouTube, 1.6 billion on WhatsApp and 1 billion on Instagram¹⁴⁵ – and the numbers are rising. TikTok is also close to the one billion user mark. Never has social media been so present and lucrative, never has it been considered more of a hotspot for social interaction. For brands and companies, it is still advisable to keep the »social« factor in mind and take advantage of it.

Without social media, branding and customer engagement no longer work. Messengers are the new customer hotlines, influ-

encers the new superheroes and online tutorials the new cookbooks and guides. It remains to be seen how marketers will design the digital shopping experience without it being perceived as annoying advertising or being clicked away with an eye roll.

Users have become more demanding. Digital habits, but also sensory overload lead to shorter and shorter attention spans. This, in turn, increases the pressure on brands to convince users not only with high-quality content, but also within the shortest possible time. In an Instagram story, for example, they do not have more than three seconds to do so. The constant

urge for self-optimisation and an obviously saturated market also mean that commerce will have to be optimised even more in the future by addressing the audience directly and personally and – depending on the channel – by using intelligent and emotional storytelling.

It is therefore time to take a closer look at this incredibly fast-changing and innovative business field and to look for answers to the question of how »social« can be turned into commerce.



dotSource

ONE-STOP SHOPS



dotSource »HIPSTER« - Men's Organic Sweatshirt
€35.49, previously €39.99



dotSource »HACK3R« - Men's Premium T-Shirt
€17.99, previously €20.99



dotSource »HUSTLER« - Women's T-Shirt
€14.99, previously €20.99

In recent years, super apps such as WeChat and Alipay have evolved into easy-to-use multi-service applications that offer everything from coffee beans to health insurance – personalised and available everywhere. Booking an accommodation, ordering something to eat, transferring money, chatting with friends or shopping some new shirts: especially Chinese users are used to having a comprehensive and intuitive digital user interface and appreciate »one-stop shops«.¹⁴⁶

However, Silicon Valley is following suit. After Facebook's half-baked attempt at setting up a marketplace and the lacklustre integration of shops into Facebook Pages, »Facebook Shops« is the first really serious attempt to combine an e-commerce platform and a social media platform. This allows the network to outsmart the comparatively more sober and purpose-driven shopping experience that other established online retailers such as Amazon are known for.

Although Amazon can reach a significantly higher number of customers than Facebook, shopping ideas tend to be generated on platforms such as Pinterest, Instagram – or Facebook. On average, German users spend 79 minutes on social networks every day.¹⁴⁷ By connecting shops to Shopify or other e-commerce systems, customers can access entire shops directly from Facebook and Instagram ads and purchase products without having to do any research in between.¹⁴⁸ This increases the profitability of ads enormously.



dotSource »HUSTLER« - Solid Colour Cup
€9.99, previously €16.49



dotSource »Basic« - Beanie
€7.99, previously €10.99



dotSource »Basic« - Bum Bag
€5.99, previously €9.99

Facebook will continue to benefit from having acquired WhatsApp and Instagram. In addition to its excellently constructed data highway, the largest of all social networks will also continue to develop the connection of shops and messengers to optimise services even further. Moreover, Facebook introduced »Facebook Pay«, a payment system within the social network, to allow for seamless and secure purchases. This principle has long been part of everyday life in China, where

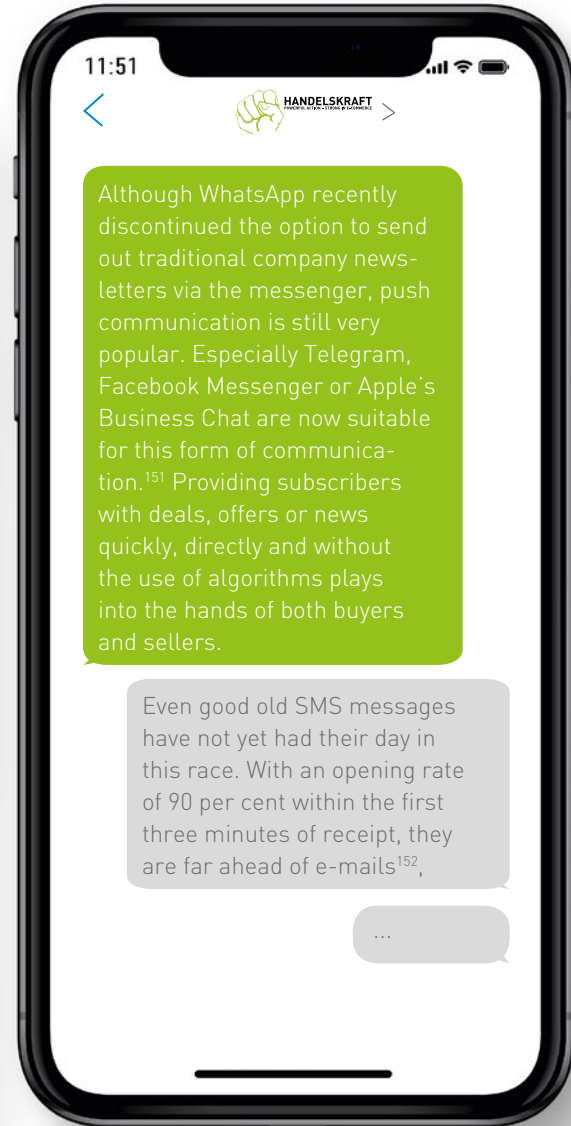
more than 1.2 billion payment transactions are processed via WeChat every day.¹⁴⁹

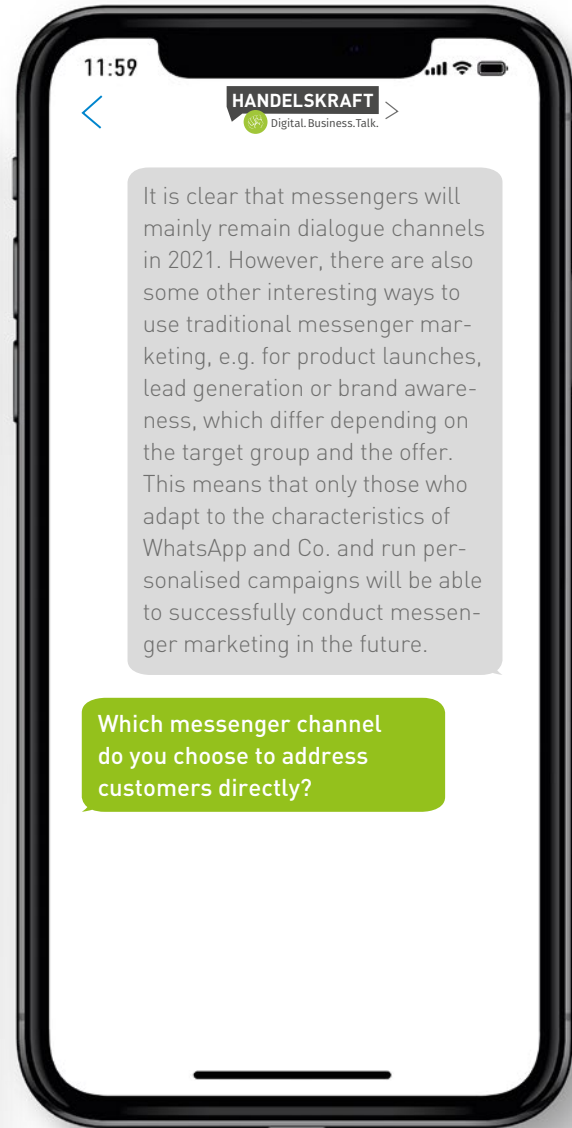
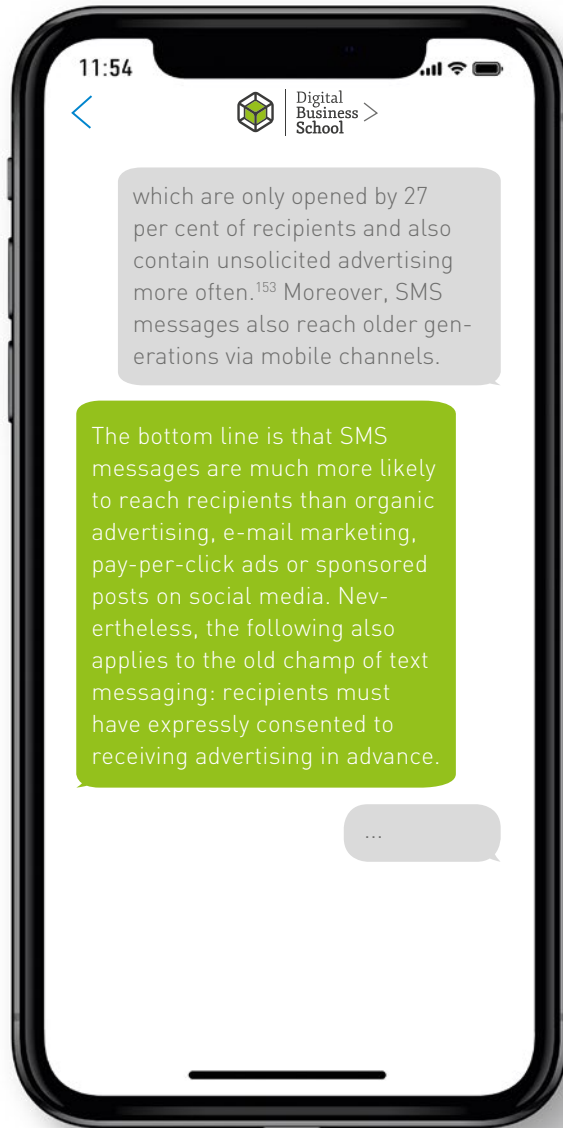
With »Snap Minis«, Snapchat has also recently offered an extension to its traditional portfolio.¹⁵⁰ Besides the option to buy cinema tickets in the app, a map with information on cafés, restaurants and shopping centres nearby is displayed and the »Scan« feature makes it possible to recognise objects. This enhances the shopping

experience with augmented reality. AR is thus increasingly being used in super apps to try on sneakers or shirts instead of just as a funny dog filter to distort selfies.

What services can you offer on super apps?

MESSENGER MARKETING





TIKTOK IS BUSINESS-RELEVANT

The Chinese video portal is no longer an insider tip: TikTok continues to make its way into the Olympus of social networks. The app is constantly coming up with new monetisation options and has already become a relevant part of the social media marketing mix for a large number of influencers and companies.

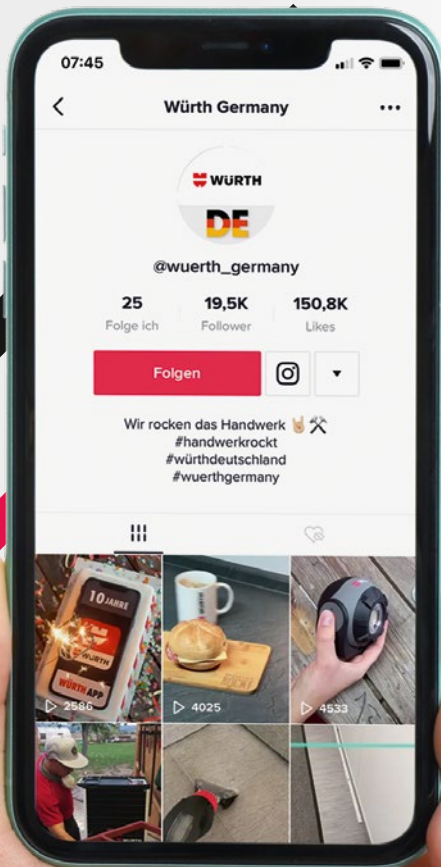
Under the slogan »Don't make ads. Make TikToks.«, the social network recently presented various tools that brands can use to develop campaigns and interact with users: TikTok For Business.¹⁵⁴ The all-out business offensive.

In-feed video ads in particular can act as an important marketing channel for companies. Before this happens, however, brands, retailers and manufacturers need to research exactly in which areas the app is relevant for their business and which influencers address which valuable target groups on

there. TikTok is simply younger and more creative than its competitors. The target group distances itself from Instagram's slick look and feel. This is what makes the app and its advertising opportunities so special.

In order to better understand the community from a marketing perspective, most companies need to collect and analyse much more data.

German-speaking influencers like »Younes Zarou« or »Herr Anwalt« alone have already been able to generate more than 70,000 years of playtime – and the number is increasing every day.¹⁵⁵ TikTok hashtags such as »viral«, »foryou« or even »corona« are very popular and various brands are mentioned frequently as well, including »Fortnite«, »Apple« and »Netflix«. The brand awareness of the user community, which is on average 18 to 24 years young, is incredibly high.¹⁵⁶ This offers tremendous potential for brands and their messages.

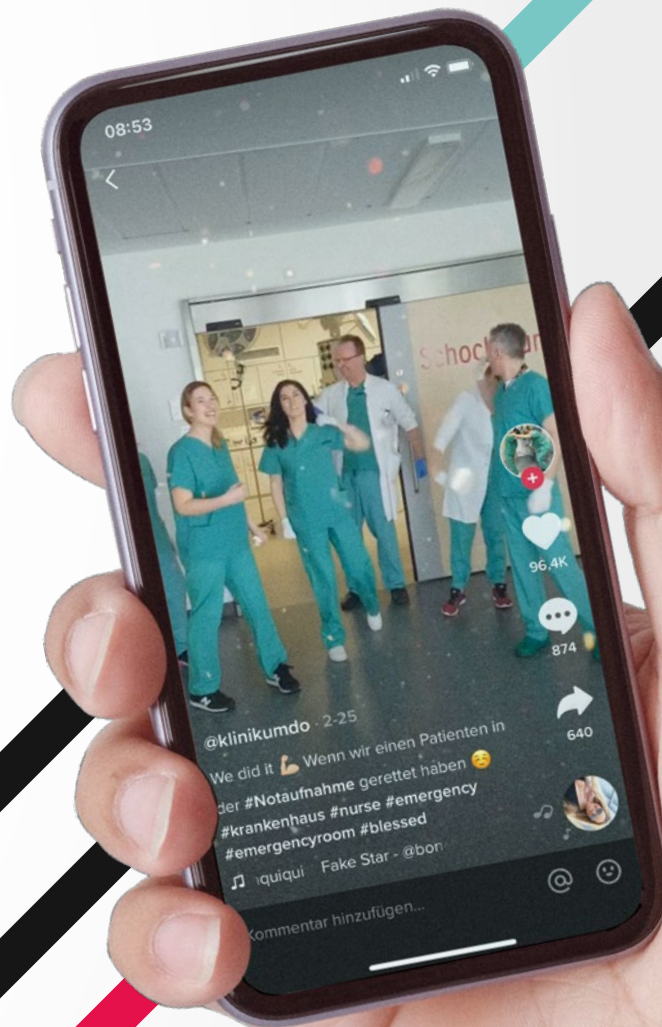


However, TikTok should not only be understood as a branding channel; it also offers a thoroughly measurable impact: on an international level, Levi's is a good example of how companies can more than double the number of visitors to their product pages within a short period of time thanks to the integration of TikTok.¹⁵⁷

TikTok has also proven itself as a recruiting tool. Under the hashtag #GameChanger, the university hospital of Dortmund playfully presented occupations requiring formal training and significantly increased the number of applications received for otherwise hard-to-fill positions, for example in the nursing sector.¹⁵⁸

The Chinese video platform is no longer a hype that can be ignored. It is rather a global network where the customers of today and, above all, of tomorrow spend their time. With the right strategy and the necessary resources, companies should find their place on TikTok as soon as possible and address their target group.

Does your social media mix meet the requirements of your target group?



**Kim Müller**Digital Business Analyst
dotSource GmbHConnections **74**

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**B2B INFLUENCER MARKETING**

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Influencers do not only promote and market products in the areas of fashion, beauty or lifestyle, but also in B2B. It is not necessarily the high reach of profile pages and blogs that is relevant in B2B, but mainly the professional content and the influencers' areas of expertise. It is important that products and services are presented in an equally emotional and inspiring way – just like people are used to in B2C.

B2B influencers are primarily selected based on relevance of content (58 per cent), personal reputation (50 per cent) and qualitative reach (47 per cent).¹⁵⁹ American Express leads by example and recently engaged an influential blogger from the design industry who helped companies and shops to raise awareness of the acceptance of Amex credit cards by means of small stickers. The campaign generated more than five million impressions on social media channels – a remarkable success.¹⁶⁰

The technology group Voith also invests in B2B influencer marketing and uses industry experts to do so. Together with several energy experts, the company travelled to various power plants in Europe in order to raise more awareness of hydropower and tagged the campaign with the hashtag #DiscoverHydropower.¹⁶¹ Voith documented the trip, products and services on multiple channels, thus generating more than 13,000 user interactions on four different social networks – within one week.

The best example and a pioneer of B2B influencer marketing is the business platform LinkedIn. As compared to the previous year, the business network generated ten per cent more revenue and recorded 27 per cent more user sessions in 2020.¹⁶² Thanks to new features, authentic influencer marketing measures are also becoming increasingly interesting for companies on this platform. LinkedIn Groups in particular are suitable for initiating discussions on relevant



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industry topics and contributing the expertise of business influencers.

The main goal of LinkedIn group activity should usually be to encourage thought leadership.¹⁶³ Thought leaders are considered experts in their field, whose expertise is highly valued by both the public and industry circles. The focus of LinkedIn group activity should not be on self-promotion, but rather on giving impetus and asking interesting questions about industry topics. Only then can an exchange with potential target groups take place at eye level.

In order to develop the right measures, it also needs to be clear which influencers are suitable for which companies – they have to fit the brand and the niche. Only those who are aware of their niche and can acquire suitable thought leaders will be perceived as a source of inspiration on business networks.

Which influencers are suitable for your industry?

LinkedIn News



International e-commerce: Advantages and disadvantages of marketplaces [5 reading tips]



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Super Apps – The New Way To Attract Customers [5 Reading Tips]

IN

CONCLUSION



THERE IS NO GOING BACK

The story of the Internet started with a crash. On 29th October 1969, Charles S. Kline tried to send a message saying »LOGIN« from Los Angeles to Stanford. However, he only got as far as the O before the system crashed.¹⁶⁴

What is taken for granted today was as revolutionary as the moon landing over half a century ago. A small text, a big step for mankind. More than 50 years of the Internet, 30 years of the World Wide Web and 25 years of e-commerce later, digital communication and collaboration, online searching and shopping as well as music and series streaming characterise everyday life.

At least since the release of the first iPhone in 2007, the way has been cleared for the principle of »everything, all the time, everywhere«. The iPhone was not the first smartphone, but it revolutionised the way we communicate, shop, work, negotiate – in short: the way we live.

Nevertheless, it took another 13 years until not just a small circle of people, but the majority of retailers, manufacturers, CEOs and managers responded to everyday digital life and the associated user needs. Those who had not taken the step towards e-commerce, data-driven business and modern work by the 2020 wake-up call had no more excuses. They had to react – quickly and following a digital-first approach.

In order to meet user expectations, retail must first be thought of in digital terms – also and especially when it comes to stationary retail. Traditional sales and service processes are a thing of the past, the time to transfer them from analogue to digital has long since come and is not yet over. The quality of consultation sessions and product presentations is not a question of location, nor is work productivity, the success of a workshop or the impact of a conference. What is crucial is the right toolset and the right mindset.

Those who look ahead achieve digital success – and so do those who understand business, collaboration and everyday life as what they are: a life in digital freedom.

ABOUT US

ABOUT US

dotSource, that's over 300 digital natives with one mission: designing digital customer relations. Our work rises from the connection of humankind, space, and technology.

We've been supporting businesses in their digital transformations since 2006. Whether e-commerce and content platforms, customer relationship and product data management, or digital marketing and artificial intelligence: our solutions are user-oriented, emotional, targeted, and intelligent.

We see ourselves as a partner of our clients, whose special requirements and needs flow into the project straight from the first idea. From strategy consultation and system selection, to branding, concept creation, UX design and conversion optimisation to operation in the cloud – together we develop and implement scalable digital products. Our approach relies on new work and agile methodologies such as scrum and design thinking. Companies like Esprit,

EMP, BayWa, Axel Springer, hagebau, C.H.Beck, Würth and Netto Digital trust in our competence.

With our blog Handelskraft.com, annual Trend Book, and Handelskraft Conference, we network industry knowledge and provide insight into current opportunities and developments of digital brand management. In order to comprehensively prepare professionals and executives for the entrepreneurial challenges of the digital world, we launched Digital Business School together with Steinbeis Technology Group in 2015.

With our groundbreaking solutions, we have been able to establish ourselves as one of the leading digital agencies in German-speaking Europe and are now among the top 10 largest companies in the industry.

KNOW-HOW: UNDERSTANDING AND IMPLEMENTING DIGITISATION



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On the dotSource YouTube channel, we bring our publications to life. At »dotSource Research«, our digital experts regularly provide you with knowledge on designing digital customer relations.



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Whether it is e-commerce and content platforms, customer relationship and product data management or digital marketing and artificial intelligence: our webinars offer the opportunity to get information on digital trend topics, network industry know-how and gain insights into current software solutions.



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E-business is not a topic that individuals or one company department can deal with on their own. It is crucial to raise awareness of this topic in all company departments. Those who have understood this and also keep an eye on general market developments should have enough arguments to make their entire workforce fit for the future. I liked the seminar very much because the participants are trained to become e-business generalists.

– Max Bremer, Head of Digital Development, Würth Group



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Thanks to the »E-Commerce Manager« certification course, I was able to get exactly the overview and professional input that I need on a daily basis – both in the exchange with developers and with customers. The »Digital Transformation Architect« certification course then helped me to overcome internal challenges. The keywords here are further strategic development of the shop, leadership and project management.

– Gina Feindt, Online Shop Sales Manager,
Delmes Heitmann GmbH & Co. KG



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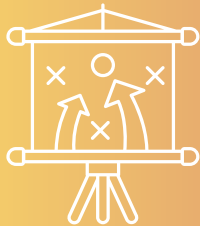
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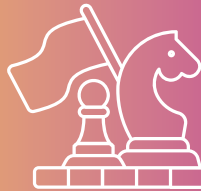
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In addition to our free webinars, we also offer digital expertise as audible content. For the regularly published »Digital Business Talk«, Digital Business Analyst Oliver Kling is joined by experts to discuss current digital trends. The focus is always on the latest developments surrounding digital business – whether it is in marketing, sales or service.



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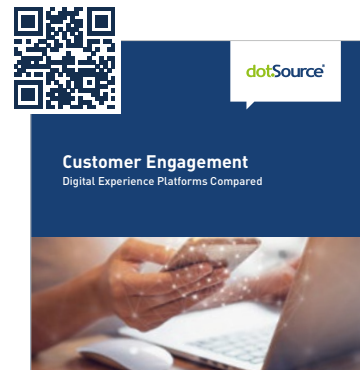
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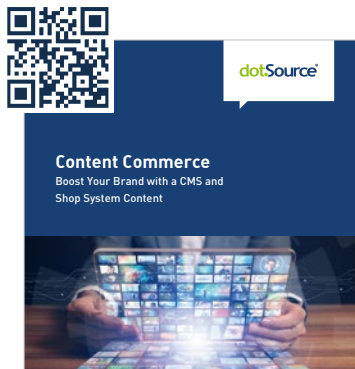
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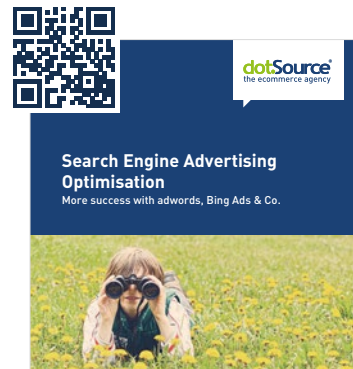
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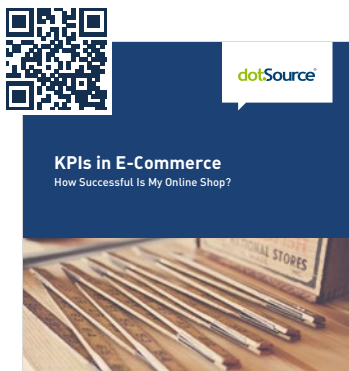
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SOURCES

»INTRO«

- 01 – **Daniela Zimmer**
– Als Gewinner aus der Krise, Internetworldbusiness 7/20, p. 13, accessed on 22/07/2020
- 02 – **<https://bit.ly/3305c15>**
– Britta Lindhoff, Drive-in bei Decathlon: Mitarbeiter packen Ware in den Kofferraum, Ruhrnachrichten.de, accessed on 22/07/2020
- 03 – **<https://bit.ly/2FKj57L>**
– Frank Kemper, Bozen bekommt einen lokalen Online-Marktplatz, internetworld.de, accessed on 22/07/2020
- 04 – **<https://bit.ly/3iC6l10>**
– Susanne Gillner, »Leipzig vernetzt«: Stadt Leipzig startet lokale B2B-Plattform, internetworld.de, accessed on 22/07/2020

»E-COMMERCE: THE E STANDS FOR EXPERIENCE«

- 05 – **<https://bit.ly/2ZDrUrl>**
– The State of Commerce Experience, bloomreach.com, accessed on 04/09/2020
- 06 – **<https://tabsoft.co/3mtFG9C>**
– FREE NOW führt mit Tableau Daten aus 13 Ländern zusammen und ermöglicht so Selfservice-Analytics für mehr als die Hälfte seiner Belegschaft, tableau.com, accessed on 05/09/2020
- 07 – **<https://bit.ly/35J7Asy>**
– Kunden berichten aus der Praxis, qlik.com, accessed on 05/09/2020
- 08 – **<https://tabsoft.co/2RuQmXd>**
– HelloFresh ermöglicht Analysen und Entscheidungen in Echtzeit mit Tableau, tableau.com, accessed on 04/09/2020
- 09 – **<https://bit.ly/2ZDrUrl>**
– The State of Commerce Experience, bloomreach.com, accessed on 04/09/2020
- 10 – **<https://bit.ly/2FzvonU>**
– ecosia.org, accessed on 16/09/2020

- 11 – <https://bit.ly/3c1oAeC>
– Inclusive Design, Microsoft.com, accessed on 02/09/2020
- 12 – <https://bit.ly/33DbX5u>
– Success Story *bofrost, dotSource.de, accessed on 16/09/2020
- 13 – <https://bit.ly/33tUZXi>
– Sowmya Subramanian, Evaluating page experience for a better web, webmasters.googleblog.com, accessed on 05/09/2020
- 14 – <https://bit.ly/3hBNT83>
– Web Vitals Essential metrics for a healthy site, web.dev, accessed on 06/09/2020
- 15 – <https://bit.ly/33srnta>
– Denise Ho, A new way to find clothes, shoes and more on Search, blog.google, accessed on 16/09/2020
- 16 – <https://bit.ly/3mvVCbl>
– Zendesk veröffentlicht neue Studienergebnisse: Service hat enormen Einfluss auf Kundenloyalität, zendesk.de, accessed on 05/09/2020
- 17 – <https://klmf.ly/32xYBlz>
– Meet BB KLM's smart assistant, bb.klm.com, accessed on 05/09/2020
- 18 – <https://bit.ly/3mpujj3>
– Success Story MEVACO, dotSource.de, accessed on 16/09/2020
- 19 – <https://nyti.ms/2ZG9Lt2>
– David Carr, Giving Viewers What They Want, nytimes.com, accessed on 06/09/2020
- 20 – <https://bit.ly/33wy4L3>
– Sarah Birk, Kundenbindung im Onlineshop: Was Netflix und OUTLETCITY METZINGEN gemeinsam haben, e-commerce-magazin.de, accessed on 07/09/2020

»COLLABORATION«

- 21 – <https://bit.ly/2RySY6t>
– Christoph Herzog, Digital Workplace – ein Begriff, viele Vorstellungen, get-digital.blog, accessed on 08/09/2020

- 22 – <https://bit.ly/3hEMfT8>
– Nicky Daly, 17 überraschende Statistiken zur Remote Arbeit, wrk.com, accessed on 16/09/2020
- 23 – <https://bit.ly/2H06qOM>
– Corona-Krise: Anteil der Belegschaft, der im Homeoffice arbeitete, aktuell arbeitet oder theoretisch arbeiten könnte in Deutschland im 2. Quartal 2020, de.statista.com, accessed on 28/08/2020
- 24 – <https://bit.ly/33D7NuF>
– Einzelfragen zum niederländischen Gesetz über die Flexibilität am Arbeitsplatz, bundestag.de, accessed on 16/09/2020
- 25 – <https://bit.ly/3koJmrr>
– Myriam Apke, Das spricht für Homeoffice – und das dagegen, impulse.de, accessed on 04/09/2020
- 26 – <https://bit.ly/2FJkr2E>
– Robin Göckes, Die hybride Arbeit wird Büroflächen einsparen, immobilien-zeitung.de, accessed on 07/09/2020
- 27 – <https://bit.ly/3hD0GHx>
– Sommer, Sonne, Arbeit, wlv.de, accessed on 08/09/2020
- 28 – <https://bit.ly/2FAQRN5>
– Dr. Roland A. Stürz, Christian Stumpf, Ulrike Mendel, Prof. Dietmar Harhoff, Ph.D., Digitalisierung durch Corona? Verbreitung und Akzeptanz von Homeoffice in Deutschland, bidt.digital, accessed on 09/09/2020
- 29 – <https://bit.ly/2lZUhuF>
– Establishing an Employee Training Institute: in 1934 at age 39, panasonic.com, accessed on 23/11/2020
- 30 – <https://bit.ly/2FyfLwQ>
– Arbeiten in Zeiten des Coronavirus: Home-Office als Herausforderung Versuch macht klug, heise.de, accessed on 05/09/2020
- 31 – <https://bit.ly/33wCXDT>
– AOK – Intranet-Relaunch, hirschtec.eu, accessed on 07/09/2020
- 32 – <https://bit.ly/35F4EwU>
– Surge in global online education, financialexpress.com, accessed on 10/09/2020
- 33 – <https://bit.ly/3iD04B1>
– Bobby Chernev, 27 Astonishing E-learning Statistics for 2020, techjury.net, accessed on 14/09/2020
- 34 – <https://bit.ly/2RAA3bm>
– Brad Zomick, How to Get the Right Training to Employees Who Will Benefit the Most, pathgather.com, accessed on 10/09/2020

35 – <https://bit.ly/2E6XpT9>
 – Michael Competielle, How »Permitted Bootlegging« Revolutionized The World Of Innovation and Creativity, mtcwriter.com, accessed on 16/09/2020

36 – <https://bit.ly/3hyUdx1>
 – Angela Hengsberger, Bootlegging Projekte: Wie Organisationsrebelln Innovationen vorantreiben, lead-innovation.com, accessed on 06/09/2020

37 – <https://bit.ly/3hlvHde>
 – Work Awesome, Awesome Innovation, youtube.com, accessed on 10/09/2020

»DATA-DRIVEN BUSINESS«

38 – <https://gtnr.it/33wHmGM>
 – Hung LeHong, Jackie Fenn, Hype Cycle for Emerging Technologies, 2011, gartner.com, accessed on 06/09/2020

39 – <https://bit.ly/35GXeJn>
 – Data Maturity: Auf dem Weg zur datengetriebenen Organisation, namics.com, accessed on 08/09/2020

40 – <https://bit.ly/3iCpYa1>
 – Accelerating Business Value with Data, qlik.com, accessed on 08/09/2020

41 – <https://bit.ly/2RzjRaq>
 – DB-Engines Ranking, db-engines.com, accessed on 05/09/2020

42 – <https://gtnr.it/2RuwyDB>
 – Laurence Goasduff, These trends can help data and analytics leaders navigate their COVID-19 response and recovery and prepare for a post-pandemic reset, gartner.com, accessed on 16/09/2020

43 – <https://bit.ly/2EbSUXu>
 – Interoperability Network Foundation, Democratizing Interoperability, interoperabilitynetwork.foundation, accessed on 16/09/2020

44 – <https://bit.ly/3pdoqac>
 – EEX startet Online-Marktplatz für Datenprodukte »In-sightCommodity«, eex.com, accessed on 09/11/2020

45 – <https://bit.ly/33xl5IR>
 – Justin Schuh, Building a more private web: A path towards making third party cookies obsolete, blog.chromium.org, accessed on 09/09/2020

46 – <https://bit.ly/35LB20P>
 – netid.de, accessed on 16/09/2020

- 47 – <https://gtnr.it/2FDq0js>
 - Rita Sallam, Cindi Howson, Survey Analysis: Why BI and Analytics Adoption Remains Low and How to Expand Its Reach, gartner.com, accessed on 12/09/2020
- 48 – <https://gtnr.it/2RuwyDB>
 - Laurence Goasduff, These trends can help data and analytics leaders navigate their COVID-19 response and recovery and prepare for a post-pandemic reset, gartner.com, accessed on 16/09/2020
- 49 – <https://bit.ly/2ZEIAyA>
 - Lexio, No more dashboards, narrativescience.com, accessed on 12/09/2020
- 50 – <https://bit.ly/2RyUUvK>
 - People Management Simplified, attendancebot.com, accessed on 11/09/2020
- 51 – <https://bit.ly/3iGTQC4>
 - A wiki you can talk to, nils.ai, accessed on 11/09/2020
- 52 – <https://bit.ly/3kovz4d>
 - powervirtualagents.microsoft.com, accessed on 14/09/2020
- 53 – <https://bit.ly/3eEHWaJ>
 - CRM to go: Mit dem dotSource Voice Assistant mobil zu smarteren Salesprozessen, accessed on 09/11/2020
- 54 – <https://bit.ly/3hzLuuD>
 - KI Studie 2020: Wie nutzen Unternehmen Künstliche Intelligenz, deloitte.com, accessed on 08/09/2020
- 55 – <https://bit.ly/2ZJgUIQ>
 - Unternehmen tun sich noch schwer mit Künstlicher Intelligenz, bitkom.org, accessed on 08/09/2020
- 56 – <https://zln.do/3mu8DSL>
 - Smart Shoppen dank künstlicher Intelligenz, corporate.zalando.com, accessed on 14/09/2020
- 57 – <https://bit.ly/32Cm8rC>
 - Bernard Marr, Künstliche Intelligenz in Unternehmen: Innovative Anwendungen in 50 erfolgreichen Firmen, books.google.de, accessed on 16/09/2020
- 58 – <https://sforce.co/3mqPSQn>
 - COMPEON und Salesforce: Mit geteilter Plattform-Vision auf Erfolgskurs, salesforce.com, accessed on 14/09/2020
- 59 – <https://bit.ly/2H7UASU>
 - Vom Heizungshersteller zum Lebensraumgestalter, customers.microsoft.com, accessed on 17/09/2020

»TECH-TELMECHTEL«

- 60 – <https://bit.ly/2RzsPEJ>
 - Per Stritich, Automatisierung von Geschäftsprozessen, Die Demokratisierung der Technologie, industry-of-things.de, accessed on 30/07/2020
- 61 – <https://bit.ly/32D3fVw>
 - Fünf wichtige Schritte auf dem Weg zu DevOps, it-daily.net, accessed on 12/08/2020
- 62 – <https://bit.ly/2FFe7t7>
 - Jessie Kösterke, Was bedeutet eigentlich »DevOps«?, accessed on 02/08/2020
- 63 – <https://bit.ly/2RATtNG>
 - DevOps Trends 2020, it-daily.net, accessed on 12/08/2020
- 64 – <https://bit.ly/3krFp5u>
 - Success Story Verlag C.H. BECK, dotSource.de, accessed on 17/09/2020
- 65 – <https://bit.ly/2E9is7s>
 - Olaf Kopp, Page Speed: Wie wichtig sind Ladezeiten als Rankingfaktor für SEO bei Google?, sem-deutschland.de, accessed on 12/08/2020
- 66 – <https://bit.ly/32G2AD4>
 - Welcome to the Jamstack, netlify.com, accessed on 12/08/2020
- 67 – <https://bit.ly/3mxunNC>
 - Toni Haupt, Pump up the JAM – better applications for smarter clients, codecentric.de, accessed on 12/08/2020
- 68 – <https://bit.ly/2ZKkMcJ>
 - A JAMstack-ready CMS, contentful.com, accessed on 09/09/2020
- 69 – <https://bit.ly/2RNt1Ax>
 - Lauren Sell, Matter Supply Scales Fast To Support Nike's Emmy-Award Winning Ad Campaign, netlify.com, accessed on 20/08/2020
- 70 – <https://bit.ly/3mxunNC>
 - Toni Haupt, Pump up the JAM – better applications for smarter clients, codecentric.de, accessed on 21/08/2020
- 71 – <https://bit.ly/33FWP7B>
 - Statistiken mit/über Scrum, scrumschau.wordpress.com, accessed on 10/08/2020

72 – **Peter Schröder**

– Coden ohne Code, T3n, 3rd quarter 2020, issue 60, p. 174, accessed on 10/08/2020

73 – **<https://bit.ly/2FGz1s2>**

– No Code? Really?! Warum es ohne Coden nicht geht – und Low Code die Lösung ist, t3n.de, accessed on 31/07/2020

74 – **<https://bit.ly/3krW6gS>**

– Charles Lamanna, Introducing Project Oakdale, a new low-code data platform for Microsoft Teams, powerapps.microsoft.com, accessed on 10/08/2020

75 – **<https://sforce.co/3ksgE9e>**

– Shannon Duffy, Forrester Names Salesforce a Leader Among Low-Code App Development Platforms, salesforce.com, accessed on 10/08/2020

76 – **<https://sforce.co/3kp8A9a>**

– Get started with Lightning Experience to boost productivity, optimize operations, and build apps, salesforce.com, accessed on 24/08/2020

77 – **<https://bit.ly/2HbuChp>**

– Die Evolution geht weiter: Hybrid und Multi Clouds gehört die Zukunft, idc-cio.de, accessed on 12/09/2020

78 – **<https://ibm.co/3iGTifk>**

– Jim Comfort, How a Hybrid Multicloud Strategy Can Overcome the Cloud Paradox, ibm.com, accessed on 14/09/2020

79 – **<https://bit.ly/35LEsR6>**

– Success Story TROX, dotSource.de, accessed on 17/09/2020

80 – **<https://bit.ly/2E9eP1i>**

– Erstmals 1,2 Millionen Jobs in der Bitkom-Branche, bitkom.org, accessed on 17/08/2020

81 – **<https://bit.ly/3c8GbRK>**

– Hardware Leasing, cno.de, accessed on 17/08/2020

»FACTS & FIGURES«

82 – **<https://bit.ly/3ekD2zv>**

– A. Poleshova, Schätzungen zur Anzahl der Internetnutzer weltweit nach Regionen im Juni 2020, de.statista.com, accessed on 03/11/2020

83 – **<https://bit.ly/3jHCxAq>**

– Customer Experience Trends Report 2020, zendesk.de, accessed on 15/10/2020

- 84 – <https://bit.ly/2HLDpXN>
– Akeneo Globale B2B Umfrage 2020, akeneo.com, accessed on 15/10/2020
- 85 – <https://bit.ly/3kIfGGj>
– Neue Untersuchungen zeigen, wie Verbraucher den Markenzweck im Jahr 2020 sehen, brandwatch.com, accessed on 27/10/2020
- 86 – <https://bit.ly/3mxOMBr>
– 20 Augmented Reality Statistics You Should Know in 2020, threekit.com, accessed on 14/10/2020
- 87 – <https://bit.ly/3kF0vfp>
– Nadia Kovac, Augmented Reality in Retail, thinkmobiles.com, accessed on 15/10/2020
- 88 – <https://bit.ly/3e5W7Fk>
– E-Commerce: +9,2% im 1. Halbjahr 2020, gabot.de, accessed on 29/10/2020
- 89 – <https://bit.ly/2TzFM2j>
– Jan Tißler, Payment Statistiken: Der Wandel durch die Coronavirus-Pandemie in Zahlen und Fakten, upload-magazin.de, accessed on 13/10/2020
- 90 – <https://bit.ly/3my6CEn>
– ECC-Payment-Studie Vol. 24, ifhkoeln.de, accessed on 10/10/2020
- 91 – <https://bit.ly/3jIBZua>
– Digital Payments Report 2020, de.statista.com, accessed on 10/10/2020
- 92 – <https://bit.ly/3kF0jN8>
– Die Marktplatzwelt 2020, gominga.com, accessed on 28/10/2020
- 93 – <https://bit.ly/350zQrS>
– Top 100 umsatzstärkste Onlineshops in Deutschland, EHI Retail Institute, accessed on 28/10/2020
- 94 – <https://bit.ly/3e5W7Fk>
– E-Commerce: +9,2% im 1. Halbjahr 2020, gabot.de, accessed on 29/10/2020
- 95 – <https://bit.ly/31Q4VtZ>
– Maddy Osman, E-Commerce-Statistik für 2020, kinsta.com, accessed on 08/10/2020
- 96 – <https://bit.ly/2G8Uzhi>
– Vinzenz Ager, E-Commerce Statistik 2020: Überraschende und nützliche Markteinblicke für Onlinehändler im Jahr 2020 und darüber hinaus, sendcloud.de, accessed on 22/10/2020

- 97 – <https://bit.ly/2TCTi5n>
 - Interaktiver Handel in Deutschland, bevh.org, accessed on 27/10/2020
- 98 – <https://bit.ly/3jytIJi>
 - A. Poleshova, Einsatz von Social-Media-Plattformen durch Unternehmen weltweit 2020, de.statista.com, accessed on 08/10/2020
- 99 – <https://bit.ly/3mwlOC4>
 - Jan Firsching, LinkedIn Statistiken 2020, futurebiz.de, accessed on 08/10/2020
- 100 – <https://bit.ly/3jGog72>
 - Social-Media-Werbung, de.statista.com, accessed on 08/10/2020
- 101 – <https://bit.ly/2HCN2bz>
 - Teodora Dobrilova, 35+ Must-Know SMS Marketing Statistics in 2020, techjury.net, accessed on 08/10/2020
- 102 – <https://bit.ly/2HHfMiR>
 - Corona-Krise: Anteil der Belegschaft, der im Homeoffice arbeitete, aktuell arbeitet oder theoretisch arbeiten könnte in Deutschland im 2. Quartal 2020, de.statista.com, accessed on 08/10/2020
- 103 – <https://bit.ly/34GKXEc>
 - Jean-Victor Alipour, Homeoffice während der Pandemie und die Implikationen für eine Zeit nach der Krise, ifo.de, accessed on 07/10/2020
- 104 – <https://bit.ly/34Euu31>
 - Homeoffice-Studie: Zwei von drei Angestellten arbeiten lieber zuhause als im Büro, sdk.de, accessed on 07/10/2020
- 105 – <https://bit.ly/37SN21J>
 - Bobby Chernev, 27 Astonishing E-Learning Statistics for 2020, techjury.net, accessed on 08/10/2020
- 106 – <https://bit.ly/31RgdOT>
 - FE Bureau, Surge in global online education, financialexpress.com, accessed on 08/10/2020
- 107 – <https://bit.ly/2HPWE21>
 - Ranking der 10 innovativsten Länder weltweit nach dem Global Innovation Index 2020, de.statista.com, accessed on 07/10/2020
- 108 – <https://bit.ly/2VSbGYx>
 - Trendmonitor Weiterbildung, stifterverband.org, accessed on 24/04/2020
- 109 – <https://bit.ly/31Wumuh>
 - Digitalisierung und intelligente Technologien, Capgemini.com, accessed on 01/10/2020

- 110 – <https://bit.ly/37SYzxQ>
– Drei von vier Unternehmen nutzen Cloud-Computing, bitkom.org, accessed on 27/10/2020
- 111 – <https://bit.ly/2HNTpsd>
– Thomas, Peham, Gartner: Bis 2024 werden 65% aller Unternehmen mit Low-Code entwickeln, computerwelt.at, accessed on 28/10/2020
- 112 – <https://bit.ly/35Lg40x>
– Achim Berg, Künstliche Intelligenz – Einsatz und Forschung in Deutschland, bitkom.org, accessed on 27/10/2020
- 113 – <https://bit.ly/380FUR3>
– Wie gehen Sie mit Cookie-Hinweisen grundsätzlich um?, de.statista.com, accessed on 26/10/2020
- 114 – <https://bit.ly/3kU7BhG>
– Jacquelyn Bulao, 33+ Amazing Business Intelligence Statistics for 2020, techjury.net, accessed on 27/10/2020
- 115 – <https://bit.ly/3kJ9r50>
– Michael Kroker, Weltweite Datenmengen sollen bis 2025 auf 175 Zetabytes wachsen, blog.wiwo.de, accessed on 23/10/2020

»FUTURE RETAIL«

- 116 – **Andreas Schobert**
– Hornbach - Artenvielfalt im Netz, K5 Digital 2020, accessed on 01/07/2020
- 117 – <https://bit.ly/3hFxpVn>
– Manuela Pauker, Adidas verwandelt seinen Pariser Flagship-Store in den Ozean, wuv.de, accessed on 23/07/2020
- 118 – <https://bit.ly/3hAWRLX>
– Stefan Schasche, Nike eröffnet Europas erstes House of Innovation, wuv.de, accessed on 13/08/2020
- 119 – <https://bit.ly/2H4Y9Jn>
– Giuseppe Rondinella, Kassenlose Supermärkte könnten auch nach Deutschland kommen, horizont.net, accessed on 07/07/2020
- 120 – <https://bit.ly/2RAcTSF>
– Johannes Altmann, Glückliche Kunden: Will jeder, macht aber niemand!, blog.shopluxe.com, accessed on 27/07/2020
- 121 – <https://bit.ly/3c7omTa>
– Frank Puscher, E-Commerce-User-Experience: Die Wahrheit über die Kunden, t3n.de, accessed on 27/07/2020

- 122 – <https://bit.ly/2H0yEcb>
– E-Commerce: +9,2% im 1. Halbjahr 2020, gabot.de, accessed on 27/07/2020
- 123 – <https://bit.ly/35K9mtf>
– Quick Commerce The Next Generation of E-Commerce, nickilange.com, accessed on 27/07/2020
- 124 – <https://bit.ly/33FMkkq>
– Melanie Bochmann, Delivery Hero rapidly expands quick commerce and partners with more than 20,000 vendors globally, deliveryhero.com, accessed on 27/07/2020
- 125 – <https://bit.ly/33G763F>
– bex-press.io, accessed on 13/08/2020
- 126 – <https://bit.ly/35J5wjZ>
– Jochen Krisch, Ultrafast: Wenn Amazon ein »typisches Last-Mile-Objekt« baut, excitingcommerce.de, accessed on 27/07/2020
- 127 – <https://bit.ly/33BRJsV>
– Garbe Industrial Real Estate baut für Amazon in Emden, garbe-industrial.de, accessed on 27/07/2020
- 128 – <https://bit.ly/2EecmTs>
– Susan Rönisch, Übersicht: Zahl der Online-Marktplätze im DACH-Raum explodiert, one-tone.de, accessed on 17/09/2020
- 129 – **Daniela Zimmer**
– Als Gewinner aus der Krise. Internetworldbusiness 7/20, p. 13, accessed on 22/07/2020
- 130 – <https://bit.ly/3kpdMd9>
– Customers' Choice 2020 - Deutschlands beste Onlineanbieter, dotSource.de, accessed on 17/09/2020
- 131 – <https://bit.ly/2Fx1BMK>
– Hannah Reed, 5 Brands Using Gamification To Drive Shopping, thecurrentdaily.com, accessed on 25/08/2020
- 132 – <https://bit.ly/32CpRwO>
– KENZO introduces Shopping League, the first e-shop in which you have to fight before you shop!, marcommnews.com, accessed on 25/08/2020
- 133 – <https://bit.ly/2FN1Liu>
– Global Gamification Market - Growth, Trends, and Forecast (2019 - 2024), reportlinker.com, accessed on 04/09/2020
- 134 – <https://bit.ly/32C7XTF>
– ESPRIT FRIENDS, esprit.com, accessed on 07/07/2020

- 135 – <https://bit.ly/3kvBLar>
– Leo Becker, Under Armour übernimmt Sport-Apps Endomondo und MyFitnessPal, heise.de, accessed on 25/08/2020
- 136 – <https://bit.ly/2RC8WwQ>
– Russian Bank Rewards Customers' Sweat With Higher Interest Rates, springwise.com, accessed on 25/08/2020
- 137 – <https://bit.ly/33F28Ea>
– Dr. Hansjörg Leichsenring, Die Zukunft der Selbstoptimierung, der-bank-blog.de, accessed on 25/08/2020
- 138 – <https://bit.ly/3muWb5s>
– Corona-Helden aus dem Gesundheitswesen können bei REWE günstiger einkaufen, rewe.de, accessed on 22/07/2020
- 139 – <https://bit.ly/32FaUmw>
– Ingo Rentz, McDonald's ver-leiht Restaurant-Mitarbeiter an Aldi, horizont.net, accessed on 10/09/2020
- 140 – <https://bit.ly/2RxFxno>
– Christian Erxleben, Facebook-Boycott! Diese 135 Unternehmen haben ihre Facebook-Werbung gestoppt, basicthinking.de, accessed on 25/08/2020
- 141 – <https://bit.ly/2ZMgRw9>
– Rüdiger Oberschür, H&M: Sellpy startet in Deutschland, fashionnetwork.com, accessed on 23/07/2020
- 142 – <https://bit.ly/2Z0jGMW>
– Inside Icebreaker, icebreaker.com, accessed on 28/08/2020
- 143 – <https://bit.ly/3iEAKf0>
– Let's be transparent, hm.com, accessed on 17/08/2020
- 144 – <https://bit.ly/32BpaN0>
– AVANI Eco: Kumala im Kampf gegen Plastik im Meer, social-startups.de, accessed on 23/07/2020

»SOCIAL COMMERCE «

- 145 – <https://bit.ly/2ZK7xZs>
– Ranking der größten Social Networks und Messenger nach der Anzahl der Nutzer im Januar 2020, statista.com, accessed on 20/08/2020
- 146 – <https://bit.ly/3hGIM7C>
– Anne-Kathrin Velten, Sind Super Apps die Zukunft? absatzwirtschaft.de, accessed on 08/08/2020

- 147 – <https://bit.ly/2Eb0YaX>
– Ranking der Länder mit höchster durchschnittlicher Nutzungsdauer von Social Networks weltweit im Jahr 2019, statista.com, accessed on 06/09/2020
- 148 – <https://bit.ly/2Flp7WP>
– Introducing Facebook Shops: Helping Small Businesses Sell Online, about.fb.com, accessed on 04/09/2020
- 149 – <https://bit.ly/35K2tbm>
– Roland Eisenbrand, Lässt sich das WeChat-Konzept in USA oder Europa nachbauen?, omr.com, accessed on 17/09/2020
- 150 – <https://bit.ly/3iM4sQk>
– Maggie Tillmann, Neues Snapchat-Update: Alle wichtigen Funktionen der App, pocketlint.com, accessed on 05/09/2020
- 151 – <https://apple.co/35LTNkE>
– Business Chat Eine neue Art, mit Unternehmen zu sprechen, apple.com, accessed on 12/09/2020
- 152 – <https://bit.ly/3hHaTTl>
– SMS vs Email and Apps: Customer engagement infograph, voicesage.com, accessed on 04/09/2020
- 153 – <https://bit.ly/2ZMAJ1W>
– Öffnungsrate im E-Mail-Marketing nach Zielgruppe in der DACH-Region in den Jahren 2015 bis 2019, statista.com, accessed on 03/09/2020
- 154 – <https://bit.ly/33CAGXB>
– TikTok for Business, tiktok.com, accessed on 17/09/2020
- 155 – <https://bit.ly/2Rzocua>
– Niklas Lewanczik, Interview: »TikTok wird Mainstream und Instagram das Leben schwer machen«, onlinemarketing.de, accessed on 14/09/2020
- 156 – <https://bit.ly/32EAEzh>
– Anna Fries, TikTok: 20 Wichtige TikTok Statistiken, die man in 2020 kennen sollte, thomashutter.com, accessed on 10/07/2020
- 157 – <https://tcrn.ch/2RxYPck>
– Sarah Perez, Levi's partnered with Tik-Tok on social commerce and doubled its product views, techcrunch.com, accessed on 02/07/2020
- 158 – <https://bit.ly/3iGTpYy>
– Miriam Mirza, Klinikum Dortmund: Kreativ in Social Media unterwegs, healthrelations.de, accessed on 04/08/2020

- 159 – <https://bit.ly/32GmkGk>
– B2B-Influencer Kommunikation, b2binfluencer.de, accessed on 04/09/2020
- 160 – <https://bit.ly/3kmeGHa>
– Marc Lange, B2B-Influencer-Marketing: 4 gelungene Beispiele, visible.com, accessed on 05/09/2020
- 161 – <https://bit.ly/33E5U0g>
– Eine Million Impressionen: Nachhaltige Ergebnisse mit B2B-Influencer-Marketing, archetype.co, accessed on 12/09/2020
- 162 – <https://bit.ly/3ca4rDi>
– Earnings Release FY20 Q4 Microsoft Cloud Strength Drives Fourth Quarter Results, microsoft.com, accessed on 05/09/2020
- 163 – <https://bit.ly/2ZN6N5V>
– Daniel Wolter, Ist »Thought Leadership« nur ein Buzzword?, blog.hubspot.de, accessed on 17/09/2020

»IN CONCLUSION«

- 164 – <https://bit.ly/3c6xF5I>
– dpa, Kommunikation über Grenzen hinweg: 50 Jahre Internet, zeit.de, accessed on 10/09/2020

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