



Digital Schools 2022

Going digital. Learning. Teaching.
Taking responsibility.

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Erleben,
was verbindet.

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Erleben,
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Foreword

Dear Reader,

Digital participation is one of the greatest justice issues in our society. The skilled use of digital media is the gateway to knowledge in the modern world. Schools have a key role to play in fostering digital literacy: they have to ensure that the best possible education is available to as many students as possible, making sure that those whose parents have little digital know-how or limited financial resources are not left behind.

We therefore need to stop seeing the digitalization of education as an additional, nice-to-have activity on top of our essential tasks; it is imperative that we approach it as a fundamental component in reforming the way we provide education. I am therefore very pleased that in its coalition agreement, the Federal Government committed to extending the Digital Pact for Schools.

Deutsche Telekom has already launched numerous initiatives in recent years that aim to make the digital transformation easier for schools. We can see that schools need comprehensive support during this process. With our network, our wide-ranging portfolio of solutions, and the best partners, we are in an ideal position to meet the digital needs of Germany's schools.

Our Telekom@School offering, previously known as *Schulen ans Netz* (Getting Schools Online), has been providing schools with subsidized broadband connections for more than 25 years. And our education flat rate provides school students with mobile access to online educational content, regardless of their home circumstances.

However, we are very much aware that the digitalization of schools is not just a question of equipment. Alongside modern IT, schools also need innovative teaching concepts, hybrid organization models, and the right support for new educational content. We are working on these topics, too, in cooperation with a range of partners. In addition, teaching media literacy has been a keystone of our social commitment for many years. Our aspiration as the Leading Digital Telco is: We want to digitalize education in Germany, and we won't stop until everyone can #TAKEPART.

What's clear is that, if we are to enjoy a prosperous future, it is imperative that we invest in good education and that we modernize and digitalize our schools. If this is to work, it is important to understand what teachers, students, and decision-makers on school boards need.

Our aim with this report is to illustrate the current challenges and opportunities associated with the digitalization of our schools from the perspective of these groups. At the same time, we will give an overview of the contribution that Deutsche Telekom and its partners are making.

I hope you enjoy an inspiring read.

Yours,

Stefanie Kreusel, Group Officer for Digital Education and School at Deutsche Telekom.

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1 Digital Schools 2022 – The current situation and challenges

The pandemic as catalyst

When the coronavirus pandemic suddenly emptied our classrooms in 2020, schools had to rethink the way they worked. The situation made it all too clear just how far behind Germany's education system was in terms of the digital revolution. However, teachers and other school staff reacted quickly and flexibly. This is confirmed in the current figures in Deutsche Telekom's 2021/2022 digitization index for education:¹ In response to the emergency, lots of schools implemented long-overdue measures promoting the use of digital technology. According to the digitization index, 75 percent of schools introduced web and video conferencing options, as well as online learning platforms. The use of school apps (48 percent), management tools (30 percent) and online document management systems (40 percent) is also becoming gradually more widespread. Online teaching measures are becoming established: 85 percent of schools feel that using new media in the classroom enriches the students' experience and improves motivation.

Room for further digital development

However, there are a number of gaps still to be filled: in many cases there is no solid technical foundation to build on. Lots of schools are still a long way from being able to provide an ideal digital learning environment. 80 percent of institutions surveyed (still) do not have an adequate internet connection, and only 23 percent have a high bandwidth fiber-optic connection. In addition, the pandemic frequently led to the use of short-term ad hoc solutions; there was neither the time nor the expertise to implement long-term strategies. To increase the use of digital technology in the education sector, 98 percent of those surveyed have concrete plans for specific investments, or in some cases are already increasing their spending. The funding they will need for this is actually available: since 2019, the Digital Pact for Schools has given schools the possibility to access a total of more than seven billion euros for their digital transformation. However, by the end of 2022, only a quarter of the funding had been paid out.

Complicated application processes and fragmented structures

What's the holdup? The application process is complicated. Schools are often overwhelmed just trying to ascertain exactly what their technical needs are. In addition, the technical and educational strategy that must be submitted with the application, although basically sound as an idea, represents an additional obstacle for many schools. In addition, there are no uniform national requirements in terms of technical equipment, administration, or maintenance. In general, fragmented structures within the federal framework are often an impediment to the comprehensive digitalization of Germany's schools: disparities in the levels of expertise among decision-makers at federal state and local level often lead to short-term investment programs that only fund procurement costs, ignoring operating and maintenance costs.

A need for further training among teachers

The practical use of technology remains problematic for teaching staff: 72 percent of schools note that their curriculum and materials are not yet sufficiently adapted to digital teaching methods. Parents are also aware of this: according to a current study by the Initiative D21 e.V. Association, "21st Century Schools," 42 percent of parents in Germany think that their child's school is out of its depth when it comes to digital teaching methods. A factor in the successful digitalization of schools that has been overlooked up to now is training and practical support for teachers. It is not just a question of teachers' ability to use the technology correctly – they must also be able to put it to effective educational and teaching use.

Comprehensive long-term planning required

In the coalition agreement, the Federal Government made a commitment to extend the Digital Pact for Schools until 2030. Better long-term use must be made of the funds to ensure comprehensive, future-proof planning. This planning must include technical equipment and infrastructure in schools, but must also factor in operation, regular maintenance, replacement, and technical support. In addition, it is essential to foster digital literacy among teachers and school students, so that the full potential of digital schools can be leveraged with effective teaching approaches.

¹ Digitalisierungsindex Bildung 2021/2022, Der digitale Status quo im Bildungswesen, Deutsche Telekom AG Corporate Communications. Bonn, Germany, 2022

2 End-to-end planning for digital schools

Deutsche Telekom has a long tradition of supporting schools. Our aspiration is: We want to digitalize education in Germany, and we won't stop until everyone can #TAKEPART. We focus on the needs of students, teachers, and school boards.

Schools of the future want to, and can, do more than simply providing technical infrastructure. Technology is a tool, and must adapt to the needs of the education system. We need new concepts for schools and lessons that consistently make use of the benefits of innovative technology.

To make this happen, we at Deutsche Telekom bring together existing and new technologies, working with a wide range of partners – from innovative start-ups, research institutions, school boards and educational publishing companies, to initiatives and associations.

Deutsche Telekom sees itself as an integral partner for schools – from individual equipment to support for digital education.

There are three dimensions to the comprehensive approach:

- **The BREADTH of the portfolio – products and services from a single source:** The challenges of implementing digitalization in schools are comparable to those facing small or medium-sized enterprises. Every educational institution therefore has to develop individual plans. These plans encompass the network connection, infrastructure, suitable terminal devices, software, and the necessary data security. Deutsche Telekom can do all this, working with its network of partners to provide modular solutions and vendor-neutral advice.
- **The DEPTH of support – from the idea to the IT service:** Deutsche Telekom provides end-to-end support, from ascertaining the need for technical infrastructure, through installation and operation management, to training and service options. This sort of intensive support in the form of advice and customer service is essential if we are to make sure that no-one is left behind in the digital transformation of schools. It allows schools to focus on their key concern: providing the best possible lessons for all students.
- **The associated VALUES – a social commitment to digital participation:** In a society of equal opportunities, everyone must have access to the necessary technologies and digital offerings. Part of Deutsche Telekom's social commitment is to work towards enabling digital participation for all. Promoting digital and media literacy among teachers and students is an important component of this; the digital future offers endless possibilities, but also new risks. Deutsche Telekom is committed to a responsible approach to the risks and opportunities of the digital transformation. One aspect of this is Deutsche Telekom's information campaign against online hate speech.

Info box

Everything from a single source: digital technology in the classroom

Deutsche Telekom helps schools to implement a comprehensive digital strategy. This is based on three paradigms: **the standardization of infrastructure, the technology openness of application platforms, and sufficient available time to develop and implement digital education strategies.** To create the technical basis for this, we are developing a system of fully coordinated complete packages to enable teaching and learning from any location: needs-based infrastructure; suitable devices; compatible software; and the necessary data security; combined with a comprehensive service offering. The system is designed to function as modular building blocks: schools can put together their own, individual solutions depending on their needs. All of the elements are based on tried-and-tested standards, so that educational institutions will be able to use their infrastructure securely in the long term. The key factor in all of this is the comprehensive service and training plan, which includes all of the modular components. This ensures that schools and teachers receive the support they need in the form of both remote and on-site options.

Sustainable on principle: a partner with a clear stance

With some 248 million mobile communications customers, 26 million fixed-network lines, and 22 million broadband lines, Deutsche Telekom is one of the world's leading integrated telecommunications companies. One of Deutsche Telekom's aims is ensuring the compatibility of business, social, and environmental aspects, as well as responsible conduct along its entire value chain.

By providing intelligent products and services, Deutsche Telekom enables its customers to optimize energy and resource use and therefore make savings. The Group also ensures the efficient use of resources and renewable energies within its own business; sustainability and upholding human rights are among the key factors in our choice of suppliers. Deutsche Telekom is therefore committed to digitalization oriented to people and values. Corporate digital responsibility (CDR) refers to efforts to manage the opportunities and risks of the digital transformation responsibly. The goals of our activities at Group Corporate Responsibility are twofold: to avert negative impacts and to make a positive contribution to digitalization.

Deutsche Telekom promotes media literacy, equipping children and young people with the skills they need to use new technologies safely. This commitment to education is embedded in Deutsche Telekom's sustainability activities. By participating in suitable projects and initiatives, Deutsche Telekom contributes to implementing the Federal Government's Sustainable Development Strategy, promoting #DigitalParticipation in education,² and the United Nations Sustainable Development Goals, in particular #QualityEducation.³

You will find comprehensive information on Deutsche Telekom's commitment to sustainability in the CR Report at <https://www.cr-bericht.telekom.com/2021/>.

Overview of Deutsche Telekom's approach:



² Sustainable Development Strategy, Germany, 2021 Federal Government, Berlin. Pages 83 et seqq.

³ United Nations. Sustainable Development Goals. 4. Quality Education. <https://sdgs.un.org/goals/goal4>

3 Creating a better foundation: making sure educational institutions are digitally equipped

3.1 Network and security

The challenge: digital learning is impossible without modern infrastructure

The expansion of internet access for schools in Germany is still not keeping pace with the needs of schools, or with the educational possibilities. In general, high transmission rates are needed if, on a daily basis, several hundred students and teachers are to use digital applications, stream and download content, or work together on digital documents as part of group projects. A study carried out by the German Education Union in early 2021 that investigated the level of digitalization in the school system throughout Germany⁴ revealed that only half of schools offered WiFi access.

Secure networking of school campuses

A powerful school network is the basic requirement for the use of digital media in the classroom. But how can schools protect these networks from cybercrime, or prevent access to illegal, pornographic, or extremist content? High security and data privacy standards are essential in a school environment. Teachers are often uneasy about the use of IT devices in schools. To overcome the challenges posed by the use of such equipment in schools, Deutsche Telekom offers a comprehensive security strategy – because, of course, marks and reports are highly sensitive data and require special protection.

A selection of our offerings

Telekom@School: For more than 25 years, the Telekom@School project has supported all general and vocational education schools in Germany with internet access. These connections are offered to schools at a substantially reduced price. The aim of this commitment is to introduce all schoolchildren to digital media and have them use them in the classroom, opening up the opportunities and perspectives offered by these new technologies.

<https://www.telekom.com/en/corporate-responsibility/corporate-responsibility/telekom-school-networks-schools-355390>

Deutsche Telekom security solutions: Internet Protect Pro provides a secure route to digital transformation: internet access is fully protected from any location and any device. Rapid direct internet connections improve the user experience. At the same time, the connection protects against breaches of data privacy and against data exfiltration.

Online school configurator: Our online school configurator is a digital tool that helps schools to use a step-by-step process to select the right infrastructure for them independently – from the connection and local networking to WiFi optimization, data security solutions, and the choice of devices. Schools can also use the results to help them compile media development plans, which are a requirement if they want to access funds from the Digital Pact for Schools.

<https://public.telekom.de/unsere-loesungen/digitale-schule/schulkonfigurator>

Media development plans: To access funds from the Digital Pact for Schools, schools must submit a media development plan. Deutsche Telekom works with its network of partners to help schools draw up their media development plan. This involves deploying tools that use artificial intelligence. The focus is on a comprehensive, sustainable approach. The goal is to ensure economical, needs-based, long-term planning on the basis of educational and teaching objectives.

EDUBASIS learning platform: This platform is a service provided by Deutsche Telekom and educational tech provider Antares. It encompasses an online media center for educational content, an app, and digital identification for students. The platform is hosted in the Open Telekom Cloud, which provides secure compliance with data protection requirements and stable operation even at times of high load.

⁴ Frank Mußmann, Thomas Hardwig, Martin Riethmüller, Stefan Klötzer: Digitalisierung im Schulsystem 2021, Göttingen, 2021.

3.2 Terminal devices and learning platforms

The challenge: simply buying tablets is not enough

Terminal devices with digital content, media, and tools are essential for digital teaching. During the coronavirus pandemic in particular, it quickly became clear in schools that laptops, tablets, and online communication tools are imperative for modern teaching. In the survey carried out for Deutsche Telekom's 2021/2022 digitization index for education, the majority of schools said that they provided smartboards and/or interactive whiteboards, along with digital devices. At the same time, it is clear that simply procuring the relevant devices and technology does not solve the problem. Up to now, the Digital Pact for Schools has financed the purchase of components, but has not funded operating costs or the cost of initial and ongoing training for teachers. This means that teachers cannot benefit in full from the potential of these media. In addition, in some cases existing devices suffer from insufficient maintenance, which means they cannot be used to their full extent.

Deutsche Telekom's approach: devices as part of a broad-based, comprehensive system

The approach always centers on the specific school and teaching situation. Terminal devices must suit the planned learning environments and learning software solutions, while allowing for the simplest possible administration and maintenance. Devices cannot, therefore, be considered in isolation; rather, they must be a component of a comprehensive plan. To do this, Deutsche Telekom deploys its own products and services, as well as those of a broad network of partners and their portfolios.



A selection of our offerings

Digital education package in conjunction with

Microsoft: Since early 2021, Deutsche Telekom has worked with Microsoft to support local schools with a comprehensive digital education package. This includes laptops and tablets, along with special education licenses for Microsoft MS365. A Microsoft-certified Deutsche Telekom team provides the services and helps set up the devices. Schools can test the package free of charge and with no commitment.

Universal device management: This software allows central management of the various devices. The system provides automatic software updates for all of the laptops, school computers, tablets, computer room computers, and digital whiteboards assigned to it.

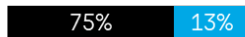
Auf welche Lösungen Schulen setzen



Digitale Lernplattform



Web- und Videokonferenz



Digitales Klassenbuch, Kursnotizbuch



Schul-App für Lehrkräfte, Pädagogen, Lernende und/oder Eltern



Digitales Stundenplanmanagement, Gruppen- oder Projektarbeitsmanagement



Dokumenten-/Filesharing-Lösungen zum Versand und Austausch von Dateien



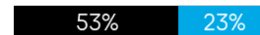
Dienstliche Endgeräte wie Tablets oder Laptops für Lehrkräfte, Pädagogen und Personal



Digitale Endgeräte für Schüler wie Tablets oder Laptops für den Einsatz im Unterricht oder bei Projektarbeiten



Anzeige- und Interaktionsgeräte wie Smartboards/Whiteboards für Klassenzimmer oder Lernräume



Bereits in Nutzung



Nutzung geplant

4 Service & support

The challenge: IT administration cannot be an afterthought



IT maintenance costs and effort for the average school are similar to those of an SME. The growing number of terminal devices requires a suitably extensive service. Above all, the disparate device landscape (a variety of manufacturers with different hardware and software environments) is particularly challenging when dealing with bugs or maintenance. In June 2021, the University of Göttingen carried out a study on the level of digitalization in the school system⁵ which showed that half of all school students had no reliable technical support for IT problems. This means that users often feel abandoned. The Digital Pact for Schools does include a ring-fenced fund of € 500 million for IT administration; however, by mid-2022, only € 116 million had been requested and approved. Independently of this, further support is needed to provide comprehensive help for teachers.

The approach: a comprehensive service policy for schools and teachers

Reliable professional operation and service ensures that teachers and learners can concentrate fully on their lessons. Deutsche Telekom's experience and its portfolio put it in an excellent position to provide all-round service, including IT security and data protection, that meets schools' requirements. The comprehensive service policy includes a service hotline for all queries, as well as an online and on-site service.

Selected projects and solutions

Digital School Service: In this service, Deutsche Telekom provides an IT service option for all of the key digital matters in the day-to-day running of a school. An experienced, certified team provides rapid, reliable help on all topics related to school IT and networks. This allows teachers to provide lessons without worrying about technical hitches or outages. During the coronavirus pandemic, Deutsche Telekom ran an initiative in which 100 schools received the Digital School Service free of charge for one year.

Key figures

Sixty-nine percent of teachers experience stress as a result of the unreliability of school IT systems, according to a study carried out by the University of Göttingen in 2021.

⁵ Frank Mußmann, Thomas Hardwig, Martin Riethmüller, Stefan Klötzer: Digitalisierung im Schulsystem 2021, Göttingen, 2021.

5 Improving digital classes: supporting teachers

5.1 Training on the job

The challenge: teachers have not had sufficient training

Teachers are the linchpin when it comes to integrating digital media into classroom-based teaching and learning processes. This calls not just for technical expertise, but also knowledge of how digital media can add value to the teaching of specific subject content, and how to foster learning processes in digital teaching and learning settings. In the survey for Deutsche Telekom's 2021/2022 digitization index for education, some 60 percent of schools said that their teachers had not had sufficient training in the use of digital tools and platforms. Training courses up to now have focused mainly on the technical usage of these media. This means that in their everyday work, teachers are often lacking knowledge and experience of how to apply new educational and teaching formats.⁶



The approach: technical expertise and new ways of imparting knowledge

Deutsche Telekom offers training courses on topics related to using digital technology in the classroom, working with the federal state teacher training institutions and with regional competence centers. In addition, Deutsche Telekom also offers an online self-assessment tool for teachers to evaluate their own digital literacy. The aim is twofold: to promote the confident and competent use of technology, and to transmit knowledge of education strategies for the use of technology in schools.

Selected projects and solutions

DigitalRoadTrip (Saxony): Turning the classroom into a laboratory for experimentation! With projects like the DigitalRoadTrip, Deutsche Telekom creates the opportunity to try using tablets in the classroom on site in schools, with expert guidance and technical support. Learning, testing, experimenting, and building valuable skills in the use of digital media – all that in a six-week workshop program. This pilot project allows schools in Saxony to consolidate the digital literacy of their teaching staff and student body, to try out application scenarios, and to explore new ways of imparting knowledge together.

Digital training weeks: As an official, certified Apple Authorized Education Specialist, Deutsche Telekom supports the Digital Training Weeks – a free online event in which teachers describe their lessons to their peers with the aim of providing inspiration to other teachers on the topic of using iPads to enhance lessons. This event, which took place for the second time in 2022, is the largest online training option for teachers in the German-speaking world.

EU Code Week: Together with Apple, Deutsche Telekom invites young people and teachers to delve into the world of app development as part of EU Code Week. In workshops and hands-on events, participants learn to develop and implement an idea for an app.

Key figures

At least half of teachers took part in courses on integrating digital media into teaching and learning courses in the last two years, according to a survey by the Center for Research on Education and School Development at TU Dortmund University.

The challenge: using digital media to add value in the classroom

⁶ Digitalisierungsindex Bildung 2021/2022, Der digitale Status quo im Bildungswesen, Deutsche Telekom AG Corporate Communications, Bonn, Germany, 2022

Harnessing the full potential of digital media as a support for learning depends first and foremost on their quality and the way they are embedded into the teaching of the specific subject. In the survey Digital School – The federal indicator 2021, only some 49.8 percent of teachers asked said that they had access to sample material on computer-aided lessons. In the 2021/2022 digitization index for education, too, 72 percent of schools stated that their curriculum and materials were not yet sufficiently adapted to digital teaching methods.

The approach: digital learning is not an end in itself

The vision for the schools of the future goes beyond the simple provision of technical infrastructure: it encompasses a comprehensive overhaul of education and teaching concepts, making full use of the benefits of innovative technology – not as an end in itself, but rather, making the most of technology as a means of achieving education objectives. Deutsche Telekom is a reliable partner for the implementation of needs-based learning scenarios. Digitalized, modular teaching content allows teachers to generate learning routes tailored to specific types of learners, increasing the likelihood of successful learning. Innovative technologies such as virtual reality open up an even broader spectrum of options for imparting knowledge.



Selected projects and solutions

Reif Magazine educational material: Deutsche Telekom works with a range of experts to produce “reif,” a compilation of educational materials on an up-to-the-minute digital topic that is published three times per year and is available to download free of charge, along with useful suggestions on how best to integrate the material into everyday lessons.

Improving learning with virtual reality: Deutsche Telekom partner VIL adds an experiential aspect to modern means of transmitting knowledge by using virtual reality technology. At the touch of a button, this technology lets students experience historical events, places that are hard or impossible to reach, and scientific phenomena, right there in the classroom.

Voice-controlled virtual assistant: Working with educational publishers Westermann, Deutsche Telekom has expanded its voice-controlled digital assistant to include foreign-language content. The virtual assistant gives students in foreign-language classes feedback on correct pronunciation.

Key figures

According to the 2021 federal indicator, **17.7 percent of teachers** work with colleagues to develop computer-aided lesson units at least once per month.

6 Improving digital learning: supporting learners

6.1 Access and participation

The challenge: digital access is an issue of justice

One in five children in Germany is at risk of poverty. In Germany even today, a child's social background can still play a decisive role in their educational success. The 2022 national report on education in Germany (*Nationale Bildungsbericht*) recently ascertained that it is still less likely for students from lower-income households to progress from primary school to types of school offering higher-level qualifications and training than young people of the same age from households that are better off. In the modern information and knowledge society, promoting participation is part of the key task of ensuring fairness. Access to digital media is an important basis for the future opportunities of the younger generation.

The approach: facilitating digital participation



On the journey towards the digital society, Deutsche Telekom is committed to ensuring that everyone can #TAKEPART. Digital participation is to be promoted, and large numbers of students provided with access to online educational content – regardless of their background. The aim of this commitment is to introduce all schoolchildren to digital media and have them use them in the classroom, opening up opportunities and fields of application with new technologies.

Selected projects and solutions

DIGITAL@School: Some 500 Deutsche Telekom employees from 40 different locations are involved in the DIGITAL@School initiative, participating at schools, at events, at parents' evenings, and online. The aim is to support children as they become responsible consumers and active participants in shaping the digital age. The employees involved can use 20 percent of their paid working hours for this commitment. The DIGITAL@School initiative won the IT Executive Club's 2022 ITEC Cares Award in the Corporate Commitment category.

Coding&Robotik4Kids: These events, focusing on coding and robotics, take place in larger towns and cities throughout Germany. Depending on the event location, some 1,000 school pupils can take part in the free program each time. Coding&Robotik4Kids is a DIGITAL@School project, which is an initiative carried out by employees of the Deutsche Telekom Group. <https://robotik4kids.de/wp/>

Education flat rate / Magenta Education rate plan: Since 2020, school boards been able to benefit from the Magenta Education rate plan, which is subsidized by Deutsche Telekom. For a small amount each month, which the school or school board pays as the contract partner, school students benefit from unlimited data volumes for educational content. This gives children and young people the chance of free digital access to knowledge and educational content, regardless of their household income level.

<https://public.telekom.de/unsere-loesungen/digitale-schule/endgeraete/mobilfunk-tarif-education>

6.2 Media literacy offerings and initiatives

The challenge: media literacy is still not a high enough priority in schools

Media literacy is one of the core skills of the 21st century. In 2016, the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* stated in its strategy on education in the digital world,⁷ “To ensure that young people learn to use digital media independently and responsibly, regardless of the level of education in their family, there should be targeted teaching in schools of computer and information skills.” The 2021 Digital School – The federal indicator⁸ study examined how teachers further their students’ knowledge and skills in these areas. The result shows that just 56.4 percent of teaching staff transmitted and promoted this type of skills.

The approach: fostering safe, skilled media use

Deutsche Telekom feels that the Group has a responsibility to help shape the digital world so that digital media can be used safely and proficiently. However, media literacy is not enough to enable us to live well and respectfully together in the digital world. Deutsche Telekom therefore underscores the connection between media literacy and democratic awareness; a wide range of projects and initiatives serve to promote mutual trust and the forming of opinion, while at the same time working to combat marginalization and online hate speech.



Selected Deutsche Telekom approaches

Teachtoday initiative: The Teachtoday initiative supports children, young people, parents, grandparents, and teachers by providing practical tips and materials on how to use media safely and proficiently. The toolbox provides a variety of digital materials in several languages to promote media and democratic competence among young people aged 9-16. The Teachtoday Initiative won the Comenius EduMedia Award in the School Education category in both 2020 and 2022. This accolade is awarded to multimedia educational products that stand out for excellence in teaching, content and creativity aspects.

#TAKEPART-Stories: The #TAKEPART-Stories initiative takes a practical approach to socially relevant aspects of the digital transformation, using them to compile modules that multipliers can use in workshops.

#NoHateSpeech: Deutsche Telekom’s #TAKEPART – no hate speech campaign, which was launched in 2020, sends a message that supports everyone’s right to make the most of the opportunities offered by the digital world without fear of marginalization or hate speech. Deutsche Telekom also supports other initiatives that are targeted at combating marginalization.

All of the relevant offerings are available in one place, free of charge, at www.medienabersicher.de.

⁷ Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* “Bildung in der digitalen Welt”, 2017

⁸ Lorenz, Ramona [Hrsg.]; Yotyodying, Sittipan [Hrsg.]; Eickelmann, Birgit [Hrsg.]; Endberg, Manuela [Hrsg.]: Schule digital – der Länder-indikator 2021. Lehren und Lernen mit digitalen Medien in der Sekundarstufe I in Deutschland im Bundesländervergleich und im Trend seit 2017. Münster, New York, 2022

7 Outlook

Providing a good education for all while making the most of the possibilities opened up by digital transformation is the ambitious goal, and also the major opportunity provided by the digitalization of schools and teaching. The Digital Pact for Schools and the coronavirus pandemic have been key drivers of digitalization in Germany in recent years, speeding up this transformation substantially.

However, the education system in Germany is still lagging behind in many areas. The first Digital Pact for Schools between the Federation and the federal states showed that it is not enough simply to provide one-off funding for technical equipment in schools. If digital education is to be an overall success, it is Deutsche Telekom's view that further changes of course are necessary, principally by ensuring that implementation is standardized and long term across the board, by simplifying the provision of basic infrastructure, and by providing support and training for teaching staff.

It is Deutsche Telekom's ambition to be the Leading Digital Telco by 2030. This includes providing responsible support to transformation processes in society, such as the digitalization of education. The Group sees itself as both inspiration and sparring partner for schools. Deutsche Telekom supports schools in mastering these complex tasks by providing technical expertise in line with the strictest ethical standards.

Together with our partners, Deutsche Telekom is helping to create a positive digital education experience in Germany. Going forward, regular, transparent reporting on the challenges and progress along the way will be provided in the Education Report.

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