ARBEITSWELT 4.0



Work 4.0 A debate on future of work





Foreword

The last two years have seen a lively debate around the future of work emerge. The center of attention here has been the possibilities, effects and management of change challenges that arise especially with digitalization. The German Trade Union Confederation (DGB) and its member unions are conducting this debate in an open-minded manner. Technological developments are in themselves neither good nor bad. They offer the prospects for new high-end jobs, for better working conditions and, all told, for a higher quality of work and prosperity. At the same time the first signs have already come that digitalization can be used for restructuring and shedding jobs, controlling and monitoring staff as well as stepping up the pressure for improved performance.

The much-quoted opportunities and threats for the future of work, however, are not completely unrelated. Good working conditions can and must be cre-

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Publisher:

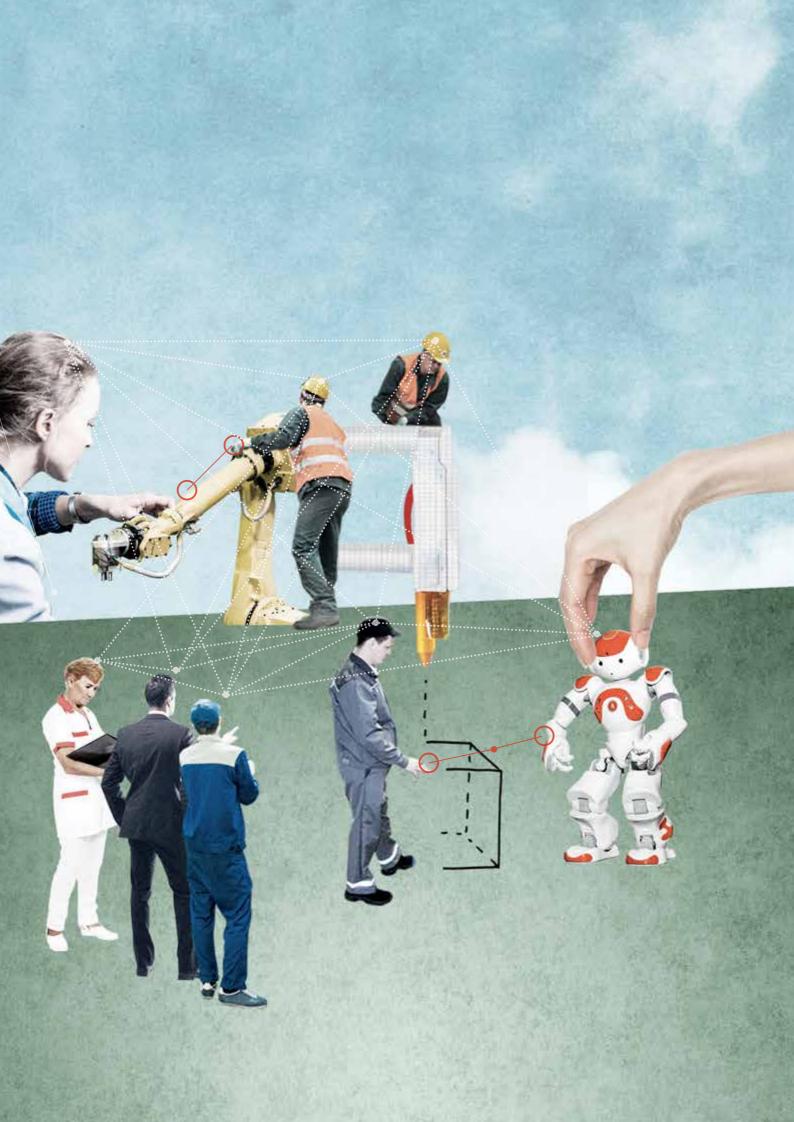
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Berlin, October 2017

ated under the banner of digitalization. This is the only way the obvious risks can be minimized. What matters here most is to comprehend digitalization as a process. A process for which human beings are answerable.

The DGB and its member unions have in recent years launched a series of initiatives and led a broad-based dialogue with employees and workplace representatives, with employers and providers of new types of work - and, of course, with politicians. The political discussion around working in a digitalized world reached a provisional high-point with the "White Book on Work 4.0" from the federal ministry for labour and social affairs (BMAS). A good point in time for taking a stand.

What's new about Work 4.0? Where do we stand today? And how can we create good jobs in a digital era? These questions are at the forefront of this DGB, course guide.'



Digitilization of the world of work: What lies ahead?

The robots are coming – this vision is linked to digitalization. And more often than not fears emerge with it that intelligent machines will take over our work. When the debate about digital working began in Germany there was an American study: It pointed to a high risk of automation for 47% of US jobs. So, will digitalization result in our losing almost half the current jobs?

Public discussion in recent years points to a "No, but,….". Forecasts about the future are always to be treated cautiously. Current investigations into the future of work in Germany paint a differentiated picture. Thus, there is unlikely to be a massive loss of jobs via digital technologies. Rather, it shows that some tasks will disappear but new will surface. And the robots will not definitively take our jobs away – what's new here is that we can work together with them. The requirements of the jobs of the future will therefore change. And in many areas the future has long since begun.

Digitalization of the world of work is a process wherein technological innovations bring about structural change in the economy and on the labour market. Why then this "but"? A broad consensus has emerged meanwhile that it will be mainly routine jobs (including in knowledge-based work) that in future may be much more likely to be replaced by machines. At the same time, it's far from certain where the new jobs will emerge and what the requirements concerning new jobs will look like. Digitalization of the world of work won't be changed at the click of a mouse. It

is a process wherein technological innovations bring about structural change in the economy and on the labour market. Here it's important that the impact on work must be thought through together from the very start. After all, the process can be managed. And this will best succeed if workplace actors are all acting in concert.

The world is getting smart – _____ Work in the *Internet of Things*

Digitalization is nothing new in the world of work. German industrial production has for many years shown a very high degree of automation. What's new is digital connectivity: Ten years ago the iPhone came on the market. Today the smartphone has not only completely transformed the way we live and our habits but also value-creation and economic processes. It is the basis for the Internet of Things.

The Internet of Things (IoT) is the vision of IT-pioneers and companies. Everything must be connected: factories and services, energy supply, our cities or our home (Smart Home). Data is the "New Oil" for tomorrow's economy. On this basis there develop Artificial Intelligence (AI) or additive manufacturing such as 3D-Printing at breakneck speed and new quality. Virtual worlds and reality merge. What's new is the combination of AI and machines and the interconnectedness of smart machines as well as the interaction of machines and humans. The digital connectedness of the world dissolves the borders between markets, regions, companies, machines and humans. New networks emerge. Digital Platforms make the economy go round. A new operating system for future working comes into being.

What does this mean for future work?

G ermany invented the label "4.0" for digitalization. Industry 4.0 for example is called "industrial internet" in the USA – and more easily illustrates what we're talking about here. It's not only the art and manner of production that's being digitalized. The value-creation processes of producers, suppliers, service providers as well as customers are being transformed. A car for instance becomes a mobility concept. Production of goods cannot be imagined without an integrated services architecture.

The fundament of the digital economy is the data that machines and humans constantly churn out. This data is used for Big Data-Applications and the development of Artificial Intelligence (AI). Machines are learning independently of us – and working together with humans. Such algorithms are not just guiding machines but also human beings – at work or as consumers.

The use of data is the market of the future, as it encroaches upon all other markets and raises societal questions too.

A very special role is played here by the huge IT-Groups Google, Amazon, Facebook or Apple (GAFA). They demonstrate the power of Lock In-Effects, used to bind their customers – private or commercial – as closely as possible to themselves. This is true, for example, of the communication

and entertainment areas, but also for trade or services. The currency for the (still) mainly free Applications (Apps) are consumer data that can be employed to expand one's own market power. This mechanism is also described as infocapitalism that may cause new distribution conflicts.

The use of data is the market of the future, as it encroaches upon all other markets and raises societal questions too. Thus, for example, smart solutions for environmental or transport problems, medical treatments and public services, turn up. On the other hand, the commercialization of data usage brings one up against new ethical questions. So, while on one side the different possibilities of optimimalization are in the forefront, critics speak of tendencies towards Big Brother capitalism. This gets particularly problematic when big data-apps make inroads into the world of working and the employees may be managed, "optimalized" and monitored digitally.

Platforms: Crowd Working – Good work?

Digitalisation of the world of work brought with it so-called work platforms on the Internet. These online-platforms offer work in a huge variety of areas, for example: microtask-platforms, design-platforms, testing-platforms and innovation platforms or platforms for diverse on-the-spot services. This creates new working possibilities and the prospect of flexible work stints.

Platform operators such as Upwork, Helpling or Uber usually state all the same they don't offer working conditions as such – quite the contrary: They usually view themselves as software businesses that just happen to offer work. Those employed are treated as self-employed and subject to the general trading conditions of the platform in question. That way employment and labour laws can be circumvented, with no claim to social insurance, holidays or co-determination rights.

This form of internet-based or -brokered work is called Crowdwork. These new working relations are controversial. After all, online platforms are not simply a digital variant of Yellow Pages. They organise work and determine its rules of engagement yet most frequently refuse to take on any of an employer's responsibilities. Even if every platform does not function in the same way, the status of crowdworkers must be clarified. The question of how employers or employees can be defined in digital working relations is not yet settled. But what is clear is that online-based services deserve fair rules and good working conditions. This is important for the pay or social security of crowdworkers but also for fair competition. Digital business models that rely on the avoidance or circumvention of taxes and social security payments need to be regulated politically.

Work via the internet also functions the other way round: In crowdsourcing, projects and commercial tasks in any business are outsourced to the anonymous mass on the Web. The issue here is not about brokering services on digital market-places but concrete online tenders. The varieties here are very diverse: there are auctions in which the best (or the cheapest) takes all – but also co-operative forms.

Online-platforms organise work and determine its rules of engagement yet most frequently refuse to take on any of an employer's responsibilities. Crowdsourcing was originally an idea for raising capacity for innovation – through external impulses, that is via specialists from all over the world. Many businesses collaborate with anonymous producers in the crowd – and indeed not just for so-called micro-tasks but also in R&D, marketing, distribution or customer service. This development is ascribed a huge potential: According to a Institut der Deutschen Wirtschaft (2015) survey 39 per cent of German firms acknowledge the wish to use this new form of organising work in future.

Crowdsourcing may also nevertheless be a disruptive element: It is a new form of Work on demand ('Arbeit auf Abruf'). Competitive pressures within businesses go global. Permanent jobs can be replaced by temporary stints. That's why one speaks of the gig economy. Here too the decisive question is what kind of work relations come about via the Web. So far a largely unregulated shadow economy is burgeoning in which there are in the end modern forms of old problems: e.g. pseudo self-employment or abuses of employment contracts. On top of that, there's more often than not the problem of digital management and monitoring of the crowdsourcees.



Big Data: Measuring the world of work

If digital data, Big Data-Apps and AI are becoming the basis for new business models and value-creation processes, then of course the question arises about data security/protection. It is often said that nobody wants ,glazed personnel' – yet reality has already moved on that way in many jobs. Personal data accrues in IT-supported production or services processes – or are used in collaboration with intelligent machines. Sometimes, data about one's work are a targeted feature of new business models. That way, customers can not only track delivery processes online for example but, at their conclusion, evaluate the work (by ranking).

Big Data has come with an optimalisation industry, with application not just in one's private life. Businesses are already today being offered software programmes and Wearables that can control the work performance, behaviour or health of employees – via suitable apps this is possible outside the workplace too. Such provisions more often than not show up as workplace reality in the form of health promotion. In what way, however, the tracking of vital employee data, for example, through wearables can be used for commercial purposes is murky for now. The decisive thing here is therefore transparency: for what purpose are data and analysis of it being used? How can the personal rights of employees be guaranteed and digital technologies applied that can improve working conditions? En route to Industry 4.0 and the "Internet of Things" lies a fine line – and a decisive predetermined breaking point for digital transformation.



Humanising of work through high tech. What's in it?

Digitalization offers many new possibilities for tomorrow's world of work.. Whether the opportunities for more high-end jobs and better working conditions can be made real depends on the configuration of the essential success factors: binding collective bargaining agreements and co-determination for flexibility, skills training and occupational health and safety at the workplace. In the discussion about Work 4.0 there's broad agreement that in future there is a need for more flexibility and new skills put to use. But this debate masks conflicts of interest about working time and resources. What's new about it is the starting point: A successful path in the process of transformation towards the world of work 4.0 could only become rocky without the full involvement of employees: The power of innovation can suffer badly. And there may even be

Doing a good job in the digital era in humanising work can only happen if flexibility – in working hours above all – serves both sides. blockades, like with the issue of data protection and supervision. That does not mean that conflicts between commercial interests and employee needs suddenly vanish into thin air. Even so, digitalization opens a new window for solving current problems and averting fresh ones.

Doing a good job in the digital era in humanising work can only happen if flexibility – in working hours above all – serves both sides. An idealistic picture no doubt but there are tangible needs for this too: In particular, advanced vocational training – incontrovertibly required for acquiring new digital competences – costs not only money but time. So, more flexible working time models are also required that enable time off for learning new skills. This whole thing does not just function by itself, but only through strong collective agreements, binding rights and employee co-determination. The same holds true for putting into practice working time desires that contribute to de-stressing and with that to better health – mental above all. Greater room for manoeuvre is therefore important for implementing the process of change in the digital era. At the same time, one needs a modern protective framework for staff to be able to set limits to their working in digital times as well.

Skills, skills, skills!

Independently of the digital transformation, winning new skills is the best strategy for ensuring career development. Many years ago the principle of, lifelong learning' was already proclaimed a fundament of preventive employment and social policy. Unfortunately, however, it was never put into practice – quite the opposite. Digitalization now offers both an opportunity and a challenge. There is a broad consensus that digital work processes demand new vocational, occupational and skills profiles. The scenarios depend upon technology use and work organization – thereby they fluctuate between de-skilling and shrunken scope of action via technical assistance systems to a vision of a qualitative upgrade of work activities through greater responsibility and less routine working. The expectation here is that the half-life of professional knowledge will go down because of the rapid pace of technological change and the need to acquire new skills will rise. New competences will be required such as in data analysis, in IT security or in revised customer relations. Social and communication skills will become even more important as well.

Digitalization will make occupational mobility a new challenge – and "vocational and lifelong learning" an obligatory task. Occupational competence among employees is the pivotal element in reaching the full potential of the digital transformation and putting staff in a position to acknowledge and use the full scope available within the workplace and on the labour market. At the same time, the forecast disappearance of activities and professions through automated processes requires a preventive strategy to avoid unemployment and provide employees with a new sense of direction.

The decisive question is how such a strategy can be put into effect. The fact is that, unlike the dual training system for young apprentices, occupational skills training for older workers in Germany is not that well developed. Even workplace provisions for the digital transformation Making skills and vocational training a selfevident element in real terms of one's career requires a co-ordinated policy to facilitate it.

are scant and mainly cover the vital commercial interests of the business. Accessibility prospects for the jobless and employed are under-developed, systems are unco-ordinated. The required incentives are absent because skills training always needs time and money.

Making skills and vocational training a self-evident element in real terms of one's career requires a co-ordinated policy to facilitate it. The way forward is uniform federal vocational training legislation enabling employees to claim for release from working on the job to undertake individual retraining with the right to return to work. Prolonging the right to work part-time is a good starting-point. At the same time, questions regarding continued pay, social security claims and taking charge of training costs must be clarified. An idea here might be, in particular, funding wage agreement initiatives such as collective agreements on skills training or part-time education.

Let us not forget the distinctly unfavourable starting point for the poorly qualified and jobless. Boosting further education & training should not just be confined to the employees and temporarily jobless, but extended to those on longterm unemployment (allowance II/Hartz IV-System). We need new incentives here such as an educational maintenance grant so that the further training offers can be successfully implemented.

No end to flexibility? Working time autonomy!

Working time arrangements in Germany hold a huge amount of flexibility. Collectively agreed working time accounts (flexitime or permanent contracts) along with defined working time corridors enable flexible management of weekly working time to take place. The spread between the upper- and lower limit can be up to 25 percent. Employees also share a strong desire to enjoy flexible working time. So there are widespread models of working time.

Yet, so far greater flexibility has tended to lead to prolonging real-time working hours. Full-time employees work 43.5 hours or just under 5 hours more than the average collectively agreed working week. All told, staff deliver almost 2 billion hours of overtime a year. Around half of this – or a billion hours – is unpaid. Evening or weekend work has jumped: more than a quarter of employees often work in such adverse situations. What's more, shift working has risen to 20 per cent. Almost one in ten regularly works nights and nearly as many on demand.

Digitalization has also raised employer expectations regarding availability. Almost a quarter of employees must be capable of being reached during timeoff. This is bringing increasing mental stress. According to a recent University of St Gallen study (2016) work demands under digitilization are in 39 per cent of cases proving damaging to private/family life. Not even half of employees manage to relax from work. Digitalization therefore does not automatically improve the work-life balance.

The technical possibilities for choosing where and when to work are, on the contrary, very limited when it comes to employees. Indeed, they must often

be "always on", but very strict opportunities to work travelling out of office or from home. Rarely can they switch between part-time and full-time working or have a say in defining working time. Many would love to cut their working hours, some – above all part-time women workers – would like to work longer hours. Desire and reality are still far apart. We are not dealing with a musical request programme here. Quite apart from the work-life balance, research shows that managing one's working hours has a huge influence on one's health. Long and precarious working hours plus no say-so have negative effects. The huge increases in mental health disorders and illnesses among employees shows that the status quo is in no way satisfactory.

The DGB and its member unions want to boost employee working time autonomy. Problems in work-life balance and health don't just suddenly evaporate because there are digital opportunities for more flexibility. More autonomy – that is, greater freedom – needs a strong mandate for intervention by trade unions, works and personnel councils and of course individuals as well. A new legal framework is therefore necessary to create new rooms for manoeuvre. More autonomy best works with better rights, collective solutions and co-determined working time arrangements in workplaces and admin offices. At the same time, health and safety arrangements for workers need to be enhanced. That way guarantees that flexibility benefits both sides.

Monitoring and control? Data protection!

Protecting one's personal rights at work is, given the context of digital technologies and Big Data analysis, a multi-dimensional challenge.

On the one hand, cloud technologies introduced into the workplace's 'digital info space' create new opportunities for employer in order to compare, evaluate and, finally, scale knowledge-based working. Performance and conduct controls are substantially facilitated by digitalization. Digital monitoring feasibilisies can morph into a sort of 'permanent probation system' in which control of the employees is additionally boosted by outside assessments from customers. Beyond that, crowdworking offers the prospect/threat of digital surveillance, as we can see already with the screening methods in place. In addition, digital reputation has a particular relevance for future crowdworking.

Thirdly, en route to Industry 4.0 new data protection issues arise concerning the human-machine-interface or human-robot-collaboration. Software-based help systems such as head-mounted displays or sensor-gloves generate lots of data on employees, what can be used to enhance working condition – or, vice versa - to create a panopticon of control and discipline the workers to optimize efficiency. In the logistics sector, for example, the best routes are determined by GPS-tracking, plausible or reasonable in some regards, but limiting human decision-making and threatening privacy via entirely monitoring. In a context of analytic data usage greater efficiency in planning, production and application processes emerge. Here there are already reports on companies that equip their employees with RFID-chips so they can control their activities and punish misbehaviour.

All told, one can point to conflicting goals of digitally-aided management on the one hand and data-protection and/or scope of action issues for employees on the other. Besides these new questions that arise through digitalization processes or digitalized work equipment, an "optimalization market" is emerging with the aim of controlling, managing or even recruiting staff with the aid of algorithms and apps.



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Data-protection is an essential pre-requisite for any successful digital transformation of the world of work. But this requires not least widespread acceptance by employees. Otherwise, there could be the threat of workplace deadlocks on implementing "work 4.0". So, it is necessary to strengthen employee data protection. In giving concrete effect to the EU general data protection regulation (GDPR) a separate employee data protection act must be implemented in Germany. The subordination of employees in a structural imbalance of employment relations demands special regulations to protect them in any individualized processing of employee data. When it comes to workplace digitalization processes, an explicit co-determination right to data protection for works and personnel councils helps and this can be extended to cover individualised processing of staff data within the workplace context. What's more, other initiatives are required to boost transparency regarding the use of big data and Artificial Intelligence and a societal debate about the conflict area between digital power and social progress.

Create the change. With collective agreement and co-determination!

In Germany constitutionally-based free collective bargaining is the norm. Negotiators determine through collective agreements the economic and working conditions within a sector and use sectoral collective agreements to set the framework for labour relations within that branch. Collective agreements are not only the most important tool for regulating pay and working conditions. They allow for secure, independent and valued work, offer a framework for tailored solutions, make a decisive contribution to innovations and make sure of fair competition. Collective agreements promote participation and are thereby a building block of social solidarity. Furthermore, collective agreements can react quickly to changes. Success in managing the transformation process for doing a good job in a digitalized world of work therefore demands a strengthening of collective agreements.

The last two decades have seen a significant decline in collective bargaining. The reasons for this are inter alia the flight of companies from binding sectoral agreeements so as to gain cost advantages – including through association membership without ('OT') collective bargaining obligations – along with restructuring into ever-

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smaller workplace units. So, further legal regulations are required to raise the level of collective bargaining, boost membership of associations of employers/ employees and make go-it-alone moves harder.

Strengthening collective agreements above all requires pay agreements to be made generally binding and enhance their collective and continued applicability in any restructuring, workplace changes and go-it-alone moves along with making collective deals retroactive.

The second pillar for Good Work in Future and a successful process of change is strengthening co-determination. That requires first of all a broader basis for employee participation in the workplace. For working in modern employment and network structures the concept of workplace needs to be updated and employee-like people also involved. What matters in future is not where you work but functionality. That way any erosion of co-determination rights through new forms of organising work can be countered.

Further, the election of works and staff councils should be made easier and

A co-determination right is also important which, in the event of regular excessive working hours, can lay claim to replacement staff. their work intensified. Apart from bringing in outside experts one ought for example to create an initiative prerogative for works and staff councils to promote skills training measures. A co-determination right is also important which, in the event of regular excessive working hours, can lay claim to replacement staff. This aspect can, given

the greater focus on results, help to avoid over-burdening staff. Given the use of new digital technologies an extended right to initiate and co-determine the application of individualized staff data is vital in the workplace context. Global networking makes it not least essential that one extends in-house company co-determination quantitatively as well as qualitatively.

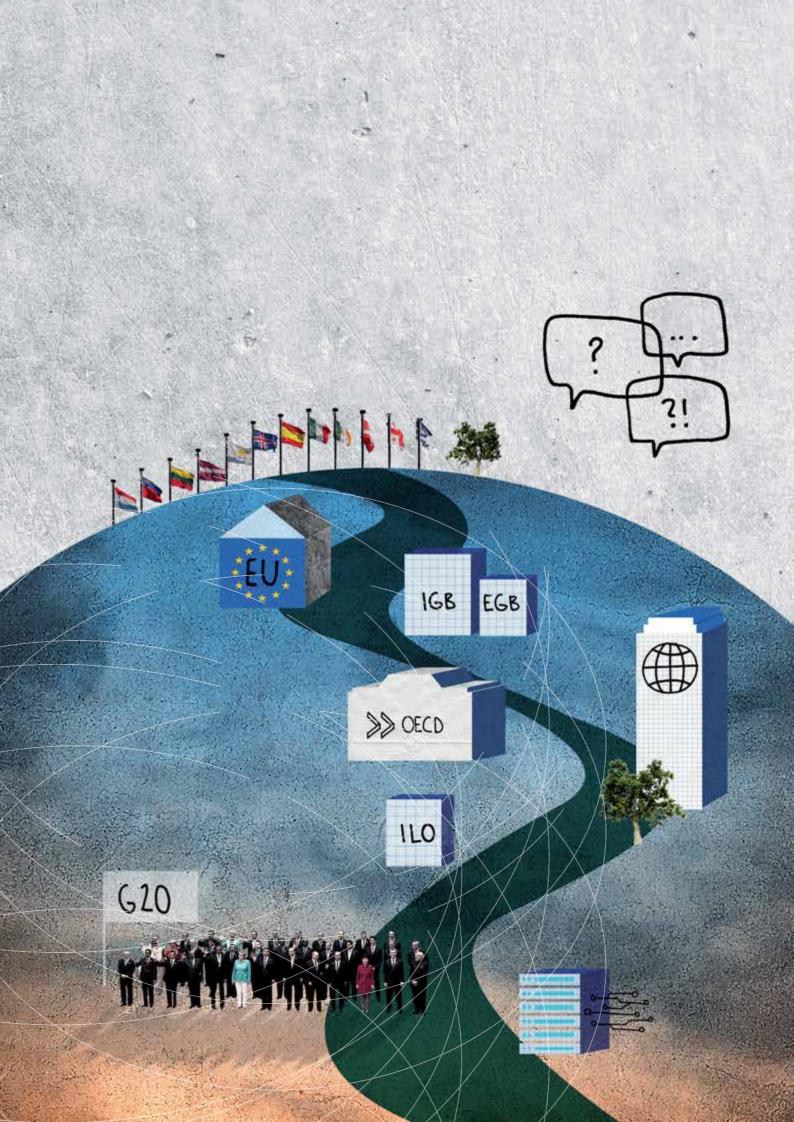
Collective agreements and co-determination are guarantees of competitiveness and negotiating procedures on an equal footing. Alongside the legal framework both instruments are vital for workplace implementation of core issues such as skills training, working time management and health & safety as well as data protection.

Initiatives in Europe – international aspects

A whole series of big international organisations and inter-governmental bodies, such as the OECD and World Bank, but also the EU and the G20, is debating the future of work. There's unanimity in this debate about global megatrends that more and more strongly influence the curerent and future world of work: globalization, demographic change, technological progress and climate change are cited as the most important "drivers of change".

Beyond describing current circumstances and exchanges about national pratices it is uncertainties that surface in all these discussions: what instruments are available now to master structural change? Does the traditional tool-box of state-run employment and social policy still work? What's a good job in the conditions of the Internet economy? What contribution do the social partners make to these processes of adaptation? These are questions that must be handled not just within national political confines but also on the international stage.

From the point of view of worker bodies the most important international discussion forum on the future of work is the International Labour Organisation (ILO) in in whose tripartite bodies workers have both a seat and a say. The ILO as early as 2013 kick-started a debate on the future of work and this was "The Future of Work Centenary Initiative". After national discussions a tripartite committee of experts is due as of 2017 to produce a conclusive report on the future of work that will be discussed and signed off at the ILO's 2019 annual conference.



Four groups of issues should lend structure to the global discussion process:

Work and society – the change in the value of work is being discussed here, the role of social justice for a peaceful society, the global fight against poverty and exploitation, but also the effects of climate change.

Decent work for all – employment policy, macroeconomy, benefits and risks of technological change and finally education and lifelong learning are at the centre of these deliberations.

Organising work and production – the talk here is about the relations between the private sector of the economy and state-provided services, about government-dictated frameworks for businesses, about the increasingly precarious nature of labour relations and about security and flexibility in employee relations.

The governance of work – here are due to be discussed questions about employment and social policy legislation, the role of the conventions and recommendations of the ILO and their implementation and monitoring, voluntary obligations from firms along with the function of social dialogue and tripartism in structural change.

The German DGB sends a representative to the executive council of the ILO and is thereby directly joining in its debate on the future.

The EU and the digital transformation

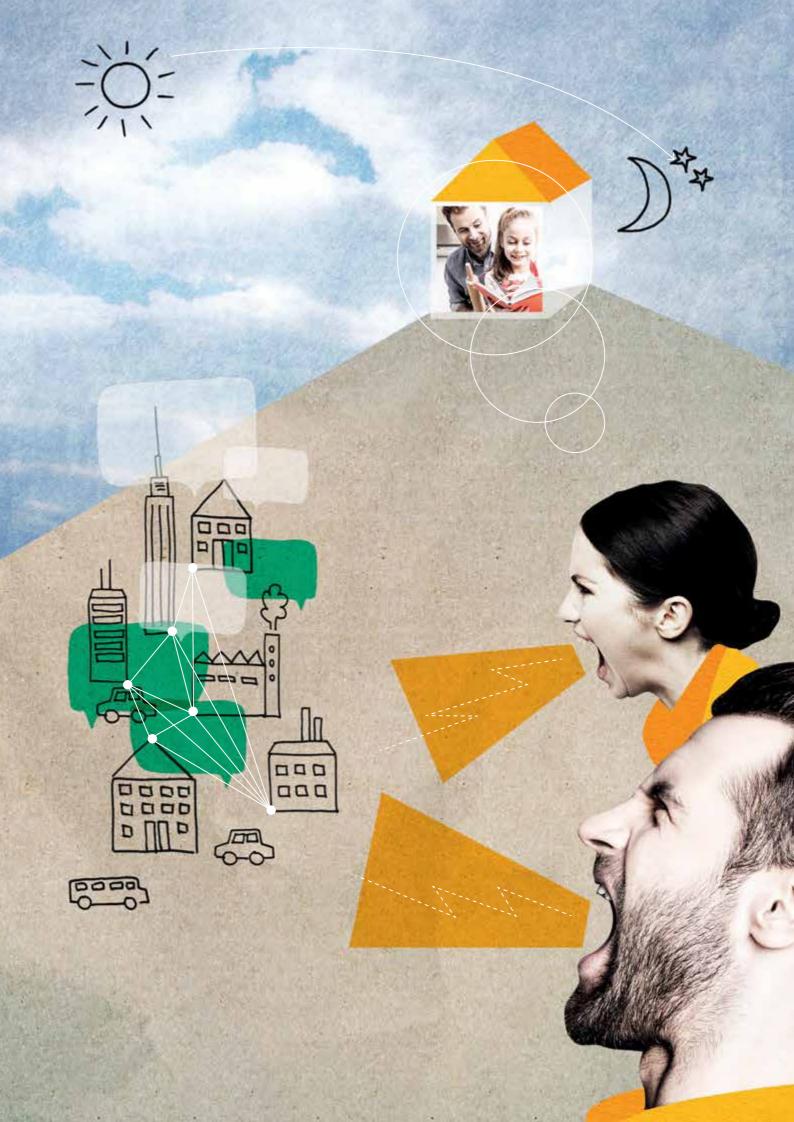
Ever since the political decision of the European Council on the creation of a digital single market in 2015, the European Commission has been targeting its efforts on supporting business, researchers and EU agencies in the search for the optimal use of new technologies. In its strategy for a digital single market and a spate of other initiatives it wants above all to invest in the EU's digital infrastructure to make up for supposed competitive disadvantages vis-a-vis other economic areas.

But there's much too little to be heard out of Brussels on the rights and protection of workers in these difficult adaptation processes. Within the EU the need for regulating work in the constantly growing internet- and platform-based economy is, however, enormous.

Therefore the DGB and, with it, the European Trade Union Confederation (ETUC), are demanding measures to protect platform-based employees with European minimum standards of employment and social security from the ever-growing precarity of their work. The trade unions are also demanding binding minimum standards for the operations of internet-based platforms on the European market, including fair and decent working conditions. Gainful employment in platform working should not be any different from normal paid working in terms of social standards.

Employee organisations can see further need for European regulation inter alia in employee data protection and rights to co-determination and consultation in Internet-based Industry.





The political process – Work 4.0 in Germany

T he discussion about digitalization's opportunities focused first of all on the economic potential of technological innovations. The DGB and its member unions have significantly helped to move humans and their work into the nub of this debate. A range of initiatives have played a part here. Relatively unnoticed by the broader public, a working research program at the federal ministry for education & research (BMBF) was initiated that is backed by the social partners. The first funding priorities on new forms of work, digital competence development, hybrid value-creation, human-machine-interface or potential benefits of greater flexibility for employees and new preventive strategies have been given a kick-start. The basic criteria of success are here especially questions of co-determination, employee data protection plus autonomous, flexible working.

The thematic focus on the new opportunities for Good Work in future is of paramount importance as Germany is turning into a huge experimental theatre and this cannot just be about promoting commercial interests. After the strongly techno-centred debate around Industry 4.0 the future of work became a big issue in 2015 – including in the media. The central reference-point was the "Green Paper Work 4.0" from the federal ministry of labour and social affairs (BMAS), with, in November 2016, the first responses to it published in form of a White Paper.

Work 4.0 – the dialogue

This public discourse has been accompanied by diverse political platforms that are being used for exchanges of views among politicians, social partners and other social groups about the fundamental questions posed by the future of work.

One way the debate has crystallized has been around the so-called flexibility compromise. The very tone indicates here that this is about balancing various interests. Especially when it comes to the topic of flexibility, the needs and wishes of companies and employees can vary sharply. Digital technologies such as the cloud, smartphone and tablet enable freed-up working. But they also lead to the fact that the dividing lines between work and private life in jobs that fundamentally enable mobile digital working and using the home as office are disappearing. This must not become a problem at all costs.

Scientific investigations demonstrate all the same that these new types of work like 'home-office' are by and large unregulated. Result: longer working hours and – in the great majority of cases – unpaid, but invisible overtime. Add the phenomenon that, especially in knowledge-based work, it's often only the result that pays (indirect control). The objections that employees should reach are more often than not set unreachably high – also, because they themselves have too little influence on fixing working hours or tasks. Yet many employees are expected to be available for work in their time off periods.

The DGB and its member unions therefore demand a package of reforms giving more working time autonomy: besides the protective framework for health the legal framework for more autonomy over the number of hour's one works should be expanded. The Federal Employers Association (BDA) has so far refused to go down this route although in many firms a modern working time schedule has long been recognized as a way of retaining and recruiting skilled labour as well as raising productivity. The discussions around the "flexibility compromise" were instead overlain with employer body demands for greater flexibility in time-off periods and an extension of the daily upper limit on working time. The striking point here is that most of the argument is seen from the employees' side. Thus it should be possible for a woman employee to go home early in the afternoon to fetch her child from school and go back to working in the evening when the child is in bed. Such a model is rendered difficult because the legal time-off period (11 hours) cannot be stuck to. Yet there should also – according to the employers - be no problem to check your emails late on 'after going to the cinema' (basically not really working). Such attempts to reduce or pick apart time-off don't just contradict scientific findings – it is also more than questionable whether these efforts truly reflect the interests of employees.

Given this discussion the labour and social affairs ministry (BMAS) in its White Paper 'Work 4.0' proposed an exemption clause in the law on working time. This should be tied above all to the condition that both bargaining sides have to agree to such an exception. The paramount question is whether any softening of legal standards by collective agreement can bring any adsvantages for employees. Unfortunately, the White Paper proposal gives no such indication. Any relaxation of working time legislation that one-sidedly aims at loosening up time-off periods and daily limits to working hours, is not the way to go. The DGB and its member unions reject out of hand any weakening of working time legislation.

The White Paper Work 4.0 makes great play of binding collective agreements, albeit in the context of possibilities for greater deregulation and flexibility. Collective agreements, however, should not be allowed to be used as a tool to undercut legally-defined minimum standards. This holds especially true for legal protective measures with which the risk is that their previous protective function no longer counts.

Working time legislation already offers, on the contrary, a very high degree of flexibility. All the same, the legal protective function must be renewed in a highly dynamic working world. The White Paper, however, lacks any concrete problem-solving approach. The proposal for a greater emphasis on advice and chaperoning as opposed to controls and sanctions from supervisors goes in completely the wrong direction.

Modernising co-determination is also a paramount future issue. So far, concrete démarches for working as partners to master the digital transformation are lacking. The proposal for extending the participation/co-determination structures seems, given the scope of structural changes, pretty half-hearted. Those for strengthening the negotiating hand of works and personnel councils in the White Paper are even more reticent. Within the dialogue process it's often stressed how important employee participation in the process of change is. That's good and important. But participation can in no way replace co-determination since the latter rests on a legal basis and lays the groundwork for negotiating processes on an even playing field. Not least co-determination is an important aspect of how to deal with individual-related data for work in the digitalized world.



The discussions around "Work 4.0" since April 2015 have underlined that the new challenges in particular regarding career development are determinant for employment prospects. Thus, there is widespread agreement that gaining qualifications/skills and vocational further training must be given an utterly new status. The White Paper, however, remains open about how to adapt, exParticipation can in no way replace co-determination since the latter rests on a legal basis and lays the groundwork for negotiating processes on an even playing field.

tend or reboot the vocational competence of employees in meeting the new challenges. Making good vocational retraining requires more time, money, and propositions that match up to the sheer variety of challenges on the labour market. This in turn requires political backing. The White Paper proposal to expand the further education infrastructure and skills advice for employees is a first and important step.

What's required now is rapid clarity over the political will to push through support and financial backing for boosting career opportunities for women and men through further education & training. Thus, the White Paper's prospective legal entitlement to further training must be put into effect. This embraces issues such as leave, continued remuneration and funding of measures in an agreed ratio that are of benefit to workplace and individual. One must take care that the very people without access to adequate finances or available time are supported. A special focus should be put on financial supporting agreed solutions by negotiation.

At the same time, efforts to help the jobless and poorly qualified are especially required. Meanwhile, one welcomes some of the elements discussed in the White Paper for buttressing the protective function of unemployment insurance that have been turned into concrete political proposals.

When it comes to the digital transformation, the scheduling of working time taking account of health and safety protection is another determinant dimension. An important approach is the legal right addressed in the White Paper to temporary part-time working with relaxation of the top-up entitlement. Such a legal entitlement can help to create more latitude for employees and implement these rights. But the same thing should hold true for the autonomy of employees. Here legal entitlements to enact the staff's working time wishes (such as for temporary part-time working, for activating the entitlement to be unavailable for work or when and where one works) as well as improved co-determination rights to more working time autonomy help. It's inadequate that the White Paper contains no further-reaching propositions for managing the digital opportunities for mobile working such as the duty on employers to document working time spent travelling or at home.

The situation regarding "work on demand", that's addressed in the White Paper, albeit without any concrete plans for dealing with it, is especially critical. Those affected earn with this type of work mainly very little since the time spent between stints of work goes unpaid. Moreover, they have to put up with substantial restrictions on how to plan their lives and time-off. One sensible possibility would be to eradicate "work on demand". At the same time, one must ensure that so-called zero-hour contracts are inadmissible. Another variant would be to at least ensure ready-and-available times with 'work on demand' are paid for.

The White Paper treats the topic of opportunities and threats that may arise through the use of digital platforms in the supply and offer of services. With the development of new business models within platform working (crowdwork), a grey zone between self-employment and being an employee can be observed. What's more, the empirical data about platform working as an element of 'reporting on the world of work' should be improved. The prospect here is that new protective concepts will be drawn up that above all should be "tailored to suit employee-like self-employed". One welcomes the fact that research on platform working will be stepped up. This does not absolve politicians from the continuing need for regulation – especially as platform operators in services refuse to take on any function as either employer or contractor. Therefore, one must sharpen up the concept of employer and employee to halt any dumping with regard to remuneration, social insurance, health & safety protection, working hours and quality assurance. The borderline between diverse forms of employment to avoid bogus self-employment and the abuse of employment contracts ('Werkvertrag') should be more strongly enforced. The concept of employee must include the protection of private and commercial dependence. In fixing the status of employee the burden of proof must be reversed. This also helps fair competition. The DGB supports the proposal in the White Paper for setting social standards here too. Platform operators hereby must take on a special responsibility. They must also contribute to the

costs of social security that fall on the self-employed who are active with them. The White Paper proposal to include one-person operators in the state pension scheme is welcome in sofar as there is a share taken by the contractor and the level of the contribution to state health insurance is carefully examined.

Political guidance of this digital transformation must however from now on not lose sight of currently disadvantaged groups pushed outside a divided labour market.

The White Paper Work 4.0 sets out the aspiration of managing the transformation of the employed society politically. That is important. Paid work should also in future be at the centre of social integration and guarantee participation as well as social mobility. Political guidance of this digital transformation must however from now on not lose sight of currently disadvantaged groups pushed outside a divided labour market. Thus the unfair starting point of many people who have been forced into precarious working conditions such as mini-jobs, sub-contracted working, temping, or improper employment contracts should be improved via political initiatives. The same goes for people who have been left behind through work-related illness and long-term unemployment. And the hurdles that prevent women from accessing the labour market with equal rights must be removed. The objective of extending the welfare state is welcome. But neither the necessity for nor societal acceptance of a system change towards unconditional basic income is envisaged. The White Paper suggests the future prospect of a "personal paid employee account" as a "social legacy", as a way of counter-acting the unequal opportunties at the start of one's career. Financial incentives for more autonomy in managing one's own cv are fundamentally welcome. All the same, the idea of a "personal paid employee account" set out in the White Paper remains very vague. Concrete enactment requires one above all to ensure a targeted approach to the special challenges of the digital transformation for the future of work, particularly related to further education. Therefore a 'personal paid employee account' should be aligned to this task.



The dialogue – the prospects

The dialogue on 'Work 4.0' was and is eminently important. For the Good Work of the future one needs at the end of the day not only technological innovations but those in the field of employment and social policy. The White Paper does not conclude this discussion process. A basic consensus has emerged but the more concrete the questions the further apart positions are. The issue now is to grasp the various ideas and turn them into sustainable concepts.

The search for a "new social compromise" has not, therefore, collapsed but has only just begun. The White Paper has provided the spur for a societal debate over the future of work. This includes, for example, the introduction of a "personal employee account", with which one's individual professional career can be fostered – as an alternative to an unconditional basic income.

These societal debates are important. Mind you, the digital transformation is already under way. Its effects upon the quality of work are already tangible. The DGB 'Index Gute Arbeit' (2016) shows that digitalization is already welladvanced in the world of work and the problems for example around pressure to perform and stress at work are if anything getting more acute. Thus, the workload for almost half of employees (46%) has risen. Opportunities with digitalization such as improving the work-life balance have evidently not yet come to pass. That is why already today political leadership of the process is required and cannot be consigned to the distant future.

Germany - an experimental hotbed

The next few years will see the argument about the best concepts and political framework for 'Good Work 4.0' continue. What matters is that one does not end up with it simply idling or being deadlocked. For even if the realignment of the economy and labour market does not function with the click of a mouse, there is no time to lose.

This is a message, which DGB and its member unions want to send also to the new coalition government, result of the September 2017 federal elections

in Germany. There are enough serious proposals and concepts on the table. It is high time, that our politicians start to establish a regulatory framework to shape actively the digital world of work of tomorrow. It has to be to the benefit of workers and their families, which are bearing the brunt of digital change. The DGB will continue to raise its voice in favor of decent digital work and against any intent of further de-regulation.

Labour research can and should help in the debate. It is in full swing: the program 'Future of Work' promises answers to the central questions of working in the digitalized world of work. Within the framework of the 'New Quality of Work initiative', working models for innovative work-organisation or modern scheduling of working time are being trialed in the workplace. In the federal states future projects such as 'Work 2020' in NorthRhine-Westphalia are searching for participatory paths for workplaces to enter the digital world of work.

What counts is that the research results are widely broadcast and offer workplace and management incentives to give shape to Good Work. The DGB therefore supports a transfer program to network the individual projects together and give the research the required economic welly.

Germany is an experimental hotbed for the work of tomorrow. And that is right and proper. What matters is a common perspective from employers, works and personnel councils and workforce with a view to successfully managing this process of transformation. The DGB and its member unions are undertaking their own projects to grapple with these big questions of the future.

This process is supported by the Hans-Böckler-Foundation. Work 4.0 is a centrepoint of the research funding in which the challenges for buttressing a modern system of co-determination are at its heart. Even if the start conditions of the digital world demand the biggest co-operation possible the process so far has shown that lines of conflict are not simply dissolved. We need therefiore a more intensive societal debate.

The Hans-Böckler-Foundation has to this end launched a Commission into the Future of Work that reflects the perspectives of politics, science and society. The commission published its final report in June 2017 that provides new angles for deepening the debate around Good Work.

The Future of Work has started. Let's Make Good Work of it.



Further information at: www.dgb.de

