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Input Paper

## **Kick-Off for the Debate on Digital Capitalism**

### **Technology for whom?**

Without doubt, we are currently witnessing a far-reaching technological revolution with significant economic, social and political ramifications. The “Fourth Industrial Revolution” followed on from the “Third - Digital - Industrial Revolution”, but differs from it in terms of the speed of innovations, their impact and the continuing integration of diverse technologies. Yet, like the discourse surrounding globalisation in the 1990s, the digitalisation discourse represents reality, promise and threat all at once. For some, digitalisation symbolises all outstanding economic and social issues, whilst others elevate the current technological development to an uncontrollable inevitability, against which nothing can be done. Yet, the political and social relevance and impact of digital networking, smart factories, crowd-work and big data depends upon how these technologies are used. Technology is not some autonomous force; instead, it is developed and deployed by human beings: it can be used both to consolidate power and promote the maximisation of profit and to make people's lives and work easier and facilitate participation. Thus, the question arises as to who owns and commands technology and what vision we should develop for its democratic and emancipating exploitation.

### **Digitalisation and Justice**

The introduction of new technologies has always been met with ambivalence, and the downsides of technological progress – the



automation of (routine) jobs, increasing inequality, ubiquitous surveillance, data protection issues and violations of the private sphere – must not be ignored. Three quarters of the global population now have access to modern communication technologies: more households have mobile phones than clean drinking water and electricity. It seems likely that, in just a few years, the smartphone will become a universal human product – the first one of the Tech-Industry. Yet, economic developments over the past 30 years, in particular, have resulted in both an enormous surge in new technologies and extreme inequality. The digital divide, both within and between societies, is still huge, and modern technologies could present us with even more problematic distributional inequalities through the sweeping annihilation of routine jobs through automation, particularly in the industrialised states and emerging economies, increased inequality between the highly qualified and less qualified or by facilitating the emergence of an “economy of the superstars” in which individuals dominate and control entire markets. Thus, questions of technology and justice are tightly intertwined. How will efficiency gains be redistributed? Who has access to technology? Whose and which needs are being satisfied through technology? And, who actually gets to decide all of this? Technology can both consolidate power and the maximisation of profit or be used to make people's lives and work easier and facilitate participation. In and of itself, technology is neither good nor bad; it is replete with possibilities and opportunities – how we use them depends on us.

### Digital Capitalism

Even more far-reaching than the Industrial Revolution, which, over the ensuing decades, also impacted agriculture, the service sector, trade and commerce, cultures and the lifestyles of millions of people, digitalisation will result in economic and social change far beyond the information sector. Already today, digital systems are a permanent feature of almost every area of the political economy, society and our social interactions. The term “Digital Capitalism” refers to the notion



that economic and social activity is centred upon the exchange of digital information via data networks. In this context, data is the most important commodity and the World Wide Web forms the meta structure of the digital economy. The Internet is the backbone of all services within the networked economy and is fundamental not only to the functioning of the economy as a whole, but also to our individual lives because it is increasingly becoming a surrogate for participation in the social sphere, whether that involves watching the news or films, listening to music, or communicating with one another. Digital Capitalism is important for both producers and consumers,

so, what we require is a more profound understanding of its infrastructural, ideological and technical underpinnings as well as its dominant economic structures. How does it react and how does it implement technological innovations? How will the Capitalist economy prosper in the age of digital information? Will Capitalism result in a “zero marginal cost society” (Jeremy Rifkin), will we soon get paid for our “tweets” (Jaron Lanier) or should the Internet be dismantled (Evgeny Morozov)?

### Platforms

A new digital economic order, known as “Platform Capitalism” is also emerging from the so-called digital transformation, in which Internet-based digital platforms (websites) function as supply-and-demand brokers. They control access to commodities as well as the processes of the respective business models. These “intermediaries” attempt to dominate markets to establish and control industry standards and to stage-manage all economic transactions – including labour wage negotiations – as auctions. But, above all, the algorithms used on these platforms leave the lion's share of the work to the public, the customers, the users, who receive no payment for their labour. Google LLC has pioneered this approach, but there are now dozens of businesses earning significant profits through such brokerage sites: Airbnb, the world's largest overnight accommodation broker owns no property of its own; Alibaba, a wholesaler with the highest turnover in



the world, owns none of its own stock; the biggest providers of telephone services in the world, WeChat and WhatsApp, have no telecommunications infrastructure of their own, and Society One, the world's fastest growing bank, holds no liquid assets whatsoever etc.

These Internet platforms produce nothing themselves, being nothing more than a virtual meeting forum. Their only property consists of data and algorithms. They draw their income through fees, advertising or the exploitation of user data. They rapidly achieve a monopoly due to the network effect. They often have a disruptive impact on existing sectors, because they service or create a private, much more extensive market in a rapid and cost-effective manner. They often advance into unfamiliar or unregulated territory, establishing their own standards along the way or circumnavigating existing statutory regulations. The result is working conditions reminiscent of merchant capitalism, e.g., brokering private taxi services as practised by Uber, or "micro-jobs" on click-work platforms such as Amazon Mechanical Turk. Standards and rules, government quality seals, labour laws and building regulations are replaced by rating systems, again fed by the website users themselves.

### Digital Oligarchy

The winner takes it all! Processing eight billion search queries per day, which accounts for 90% of all Internet searches in some countries, Google is the most dominant gatekeeper of information, and holds a monopoly in most regions of the world. This is typical of the digital economy, in which the tendency towards monopolization is pre-programmed, with tangible economic effects. According to a recent study, some 70 per cent of the 300 billion dollars in turnover earned by all US American publicly-listed Internet companies together at the last count go to barely five per cent of these companies. Amazon and Alphabet alone banked 57 per cent of the revenues.

Jaron Lanier refers to such Internet platforms as "siren servers", likening them to the Sirens in Homer's Odyssey, luring people in with



free services, only to ensnare them, tying them in for all eternity, never again releasing them from their embrace. These “sirens” will succeed as soon as change becomes impossible, whether for want of alternatives, or because it would be too expensive to change or simply, because everyone is already ensnared by Microsoft, Google, or Facebook. Benefiting from the network- and lock-in effects, these enterprises rapidly acquire a monopoly position, arrogating to themselves the right to change the rules of the game whenever it suits them. Experiments with payment models and changes to private sphere settings are par for the course. Their counterparts are private individuals, who have no influence whatsoever on the overall system: this applies to both private customers and many companies that use the digital infrastructure of the major platforms and high-tech enterprises.

Just a handful of investors are making decisions about future developments. Considering the next major step in artificial intelligence (AI), it is not improbable that just four American and four Chinese enterprise groups will dominate the entire AI scene in the near future. Amazon invested 13 billion dollars in AI technology in 2016, followed by Google with 11 billion. Ali Baba – a major Chinese conglomerate – is planning to invest ten billion dollars in AI research. Enormous orders of magnitude, but these are the sums that will be decisive in the competitive struggle, to compete in which requires a robust infrastructure but also vast volumes of training data without which AI algorithms cannot be developed. Current developments in machine and deep learning are supported by mountains of data, and it is these companies that have accumulated it.

Whilst it is true that Google and Co. often come in for criticism, this is often restricted to their lax privacy protection provisions, selling user data or their collaboration with the NSA: yet, we know very little about their agenda. What are their attitudes towards infrastructure policy, standards and regulations? Moreover, we need to understand how value is created in this new economy – clearly, data is the key factor, but how does that work?



### Data Competition

All of these systems produce enormous volumes of data: 72 hours of video footage is uploaded to YouTube every minute; over 100 billion photos have already been uploaded to Facebook, and in excess of 40 billion apps downloaded from Apple iTunes. According to various estimates, between one Megabyte and one Gigabyte of data are collected per person per day. The term “big data” refers to a gigantic, rapidly-expanding volume of unstructured data drawn from numerous decentralised sources. Data mining techniques can establish relationships between different files to identify hitherto unrecognised patterns. The associated business models exploit the fact that, when using Internet-based digital services, people voluntarily make their private data available, for example by using a Satnav system or health app. Increasingly, networked appliances and systems, such as smartphones, cars, heating systems or jukeboxes are feeding data into the system. But, who owns this data? Are there regulations in place governing the use of this data? Will we ever create robust systems, to protect us from the pervasive penetration of our entire society by these data collection giants, or at least help us to defend ourselves against them? It is this context that also shows most clearly how many new ethical and legal questions need to be addressed as well as the fact that data security and protection are becoming core social problems.

Thus, the coming years will be about nothing less than the establishment of a new data ownership order. Digital data can be reproduced arbitrarily and in unlimited numbers. Whenever we share data between us, its value to us increases. Yet, to be able to profit from this value, we need to organise the digital world differently from the material world. In contrast to the data assets held by private companies and states, collected and hoarded under lock and key by the digital oligarchs, and a plethora of authorities and state governments, publicly accessible data volumes are minute. Data portability has been enshrined in EU legislation since 2018, and gives



all citizens the right to demand copies of and use any of their personal data collected by any company. This could form the starting point for a collective data resource.

### Brave New World of Work?

Discussions about the future of work and employment are not new, and have permeated public discourse for many years, whereby, like globalisation or demographic change, digitalisation is just one driver of change among many.

A series of developments leading towards “Work 4.0” can already be seen: the new world of work is marked by digital networks; employment contracts are giving way to work assignments; global transparency of skills and availability is normalising hiring-on-demand; highly-qualified workers are carrying out tasks around the world under the framework of umbrella projects; the geographic location of the service provider is no longer relevant; at the same time, operational tasks are being carried out by semi-skilled and often poorly-paid local workers; there is a growing tendency towards polarised employment markets, one of the ramifications of which is that pressure to outsource routine jobs that have not already been automated to low-wage countries continues to increase; digital services are being diced up into ever smaller pieces; and, the role of human beings in production processes is being transformed from that of operational worker to machine monitor, whereby the machines complete routine tasks automatically. The availability of big data provides sufficient data for all sectors, and the ability to combine and interpret it is one of the key qualifications of digital work.

The global, flexible networking of different machine systems across corporate boundaries is resulting in the decoupling of work tasks from company operations. On-line platforms are now also offering separate, sometimes extremely dissected work tasks, which sole traders are completing on a freelance basis virtually for piecework rates. Work tasks are being decoupled from the operational context. The capital



investors are restricting opportunities for autonomous action on the part of, and increasing monitoring and control of the workers, as well as creating a more precarious working environment.

The unions are faced with the challenging fact that existing rights, for example occupational health and safety provisions are difficult to accommodate and uphold in crowd-work environments. However, employment regulations must be enforced even for crowd-workers. New forms of social security and participation must be found. To the extent that the unions are able to successfully shape such processes, they will also be deciding on the role they will play in the representation of collective interests in tomorrow's labour market.

Even though the effects of digitalisation are likely to differ from country to country, and the actual effects are still hotly debated, the fact remains that the proportion of people for whose jobs this new surge in automation represents a severe threat is far greater than those for whom it opens up new opportunities. Even if new job opportunities are created in other sectors of society, it is rarely existing employees, but rather new job seekers who find good jobs in the wake of any structural transformation. In this context too, the question of equitable transitions arises. Many people will have to reorient themselves, which they will only succeed in doing if they are not forced to spend all their time fighting for their naked survival. That is why we also need a public debate on existential social security measures such as the basic income.

### Digital Enlightenment

In summary, one cannot afford to be blind to technological innovations, but, by the same token, we must not subject ourselves to any sort of though control strictures with regard to how the social potential inherent in technology may unfold and what conditions need to be put in place for this to happen. Progressive parties, in particular, ought to harbour fewer reservations about technology and think more about its social dimensions. What impact will digitalisation have on our



working environment? What makes a digital society vulnerable? How can we encourage more participation via digital technology? How can we become mature and competent citizens within and with the Internet? Who will determine the rules of the game in future? Which agenda should digitalisation serve? Who will it empower and who will it disenfranchise? How can it be used to tackle the greatest challenges facing humanity?

What we absolutely need is Digital Enlightenment! That not only means that we need more transparent access to information and technical and social developments, but also that the people must be empowered to be able to help shape the relevant developments. To this end, we need better education and training about the digital sphere, that also facilitates the acquisition of general skills. How and where do I find the necessary information? How can I assess it? How can I protect myself from “fake news”? How should I use social media platforms? How do I use digital resources? How can I ensure that I control the devices and systems, not the other way around? This all requires basic capabilities, such as critical thinking.

Therefore, discussions relating to these questions must not be held in closeted government circles or cloistered board rooms, but must be held in public. Only in this way can we become the architects of this technological revolution rather than its hapless pawns.