I.L.A. Kollektiv

AT THE EXPENSE OF OTHERS?

How the imperial mode of living prevents a good life for all

With a preface by **Ulrich Brand, Barbara Muraca** and **Markus Wissen**

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Suggested citation:
Thomas Kopp, Maximilian Becker, Samuel Decker, Jannis Eicker, Hannah Engelmann, Ia Eradze, Franziskus Forster, Stella Haller, Magdalena Heuwieser, Maja Hoffmann, Carla Noever Castelos, Christoph Podstawa, Anil Shah, Anne Siemons, Therese Wenzel, Lukas Wolfinger, 2019: At the Expense of Others? How the imperial mode of living prevents a good life for all. Munich: oekom.

© 2019 oekom, Munich
oekom verlag, Gesellschaft für ökologische Kommunikation mbH,
Waltherstraße 29, 80337 Munich

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Project running organisation: Common Future e.V. (charitable organisation)
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Editing and copy editing: Katharina van Treeck
Stylistic editing: Severin Caspari
Layout, illustration, cover design: Sarah Heuzeroth
Typesetting: Reihs Satzstudio, Lohmar
Print: Friedrich Pustet GmbH & Co. KG, Regensburg
ISBN: 978-3-96238-156-1

Bibliographic information for the Deutsche Nationalbibliothek:
the Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at http://dnb.dnb.de.

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Climate neutral
Publisher
ClimatePartner.com/53585-1805-1001

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Bibliographic information of the German National Library: The German National Library has registered this publication in the German National Bibliography; detailed bibliographic information can be found online at: http://dnb.d-nb.de.

On emission offsets see also the infobox on page 82.

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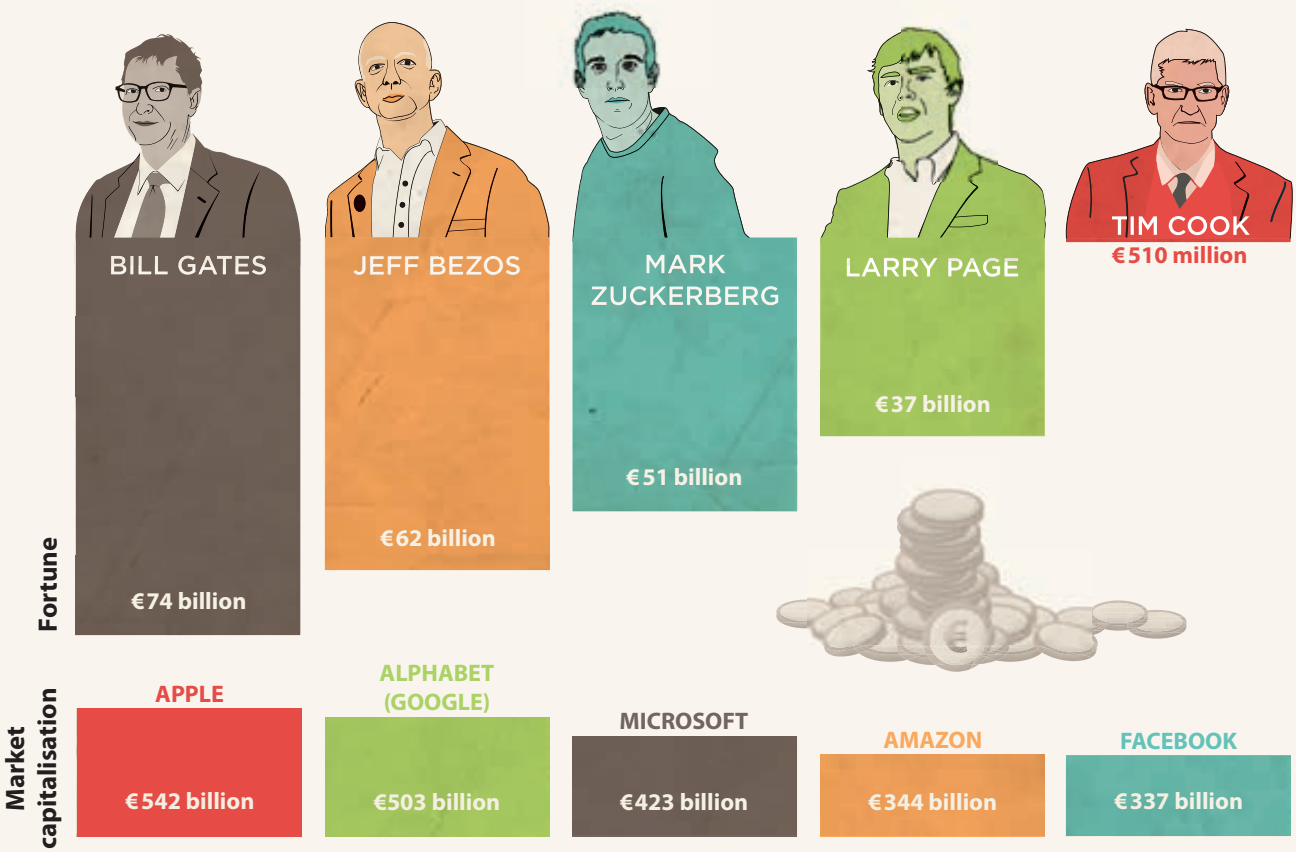
The laboratory of dreams and of nightmares

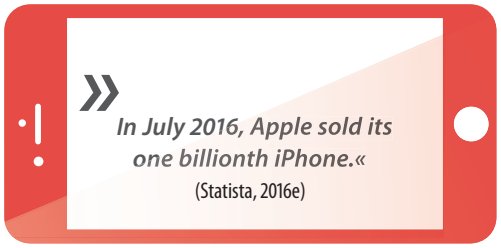
Everyone knows the feeling. That urge to 'go online'. A yearning to delve into the instantly updated digital world, keen not to miss a single thing. One in four people now has a Facebook account. Skype manages 150 million calls daily, Twitter 800 million tweets and Google processes over four billion search queries. #welcometothedigitalworld

Digitalisation is a mega-trend that took flight at the dawn of the 21st century. It has become *the* buzzword, and we are noticing its advance into ever more areas of our lives. "Global connectivity"[1] seems close to becoming a reality. Many believe the *internet of things* is the future: more and more objects — from electronic devices to clothes — are being equipped with sensors and connected through the internet, giving rise to a new digital environment. With a single mouse click, we can control our 'smart' houses, factories or even entire cities. For large (international) business associations and political institutions, the case seems clear: digitalisation is not only 'smart', it also promises progress and wealth.[2] This builds on the hope that digitalisation will once again deliver the growth rates of past decades and bring an end to economic stagnation. The figures reveal the undeniable potential of the digital sector. Gone are the days in which fossil fuel corporations and banks were the world's most valuable companies; they have been replaced almost exclusively by high-tech and internet corporations (Figure 3.1).[3] For others, digitalisation holds the promise of a commons-oriented life that places numerous spheres firmly out of reach of the commercial market.[4] More pessimistic observers see the advent of a "smart dictatorship"[5] that makes full use of the opportunities for surveillance and control offered by digital networking. Today digitalisation appears as much a laboratory of dreams as of nightmares.

Blind euphoria for digital progress, as much as the damning condemnation of all things digital as potentially totalitarian surveillance technologies, is not good enough. What is needed is a nuanced and differentiated

Figure 3.1: The billion-dollar digital industry
Source: Statista, 2016a, 2016b; World Bank, 2016





analysis. This is the aim of this chapter. We begin by asking what the new normality of the digital age is like for various stakeholders. Secondly, in an attempt to provide an analysis of the material basis for digitalisation, we examine the origins of the components that make one very common device: the smartphone. How does the digital global economy work? Who profits and who loses out? In the third part, we consider these questions prior to, finally, looking at the mechanisms and opportunities digitalisation offers for a socio-ecological transformation of society. We will also discuss how and in what ways digitalisation has so far blocked such a transition. As we will see, global inequalities and power imbalances are closely tied to the dominant imperial modes of living and production. They are also one of the fundamental reasons why we are currently experiencing increasingly severe crises in spite of digital technologies offering us more opportunities for a better life than ever before.

Digital normality

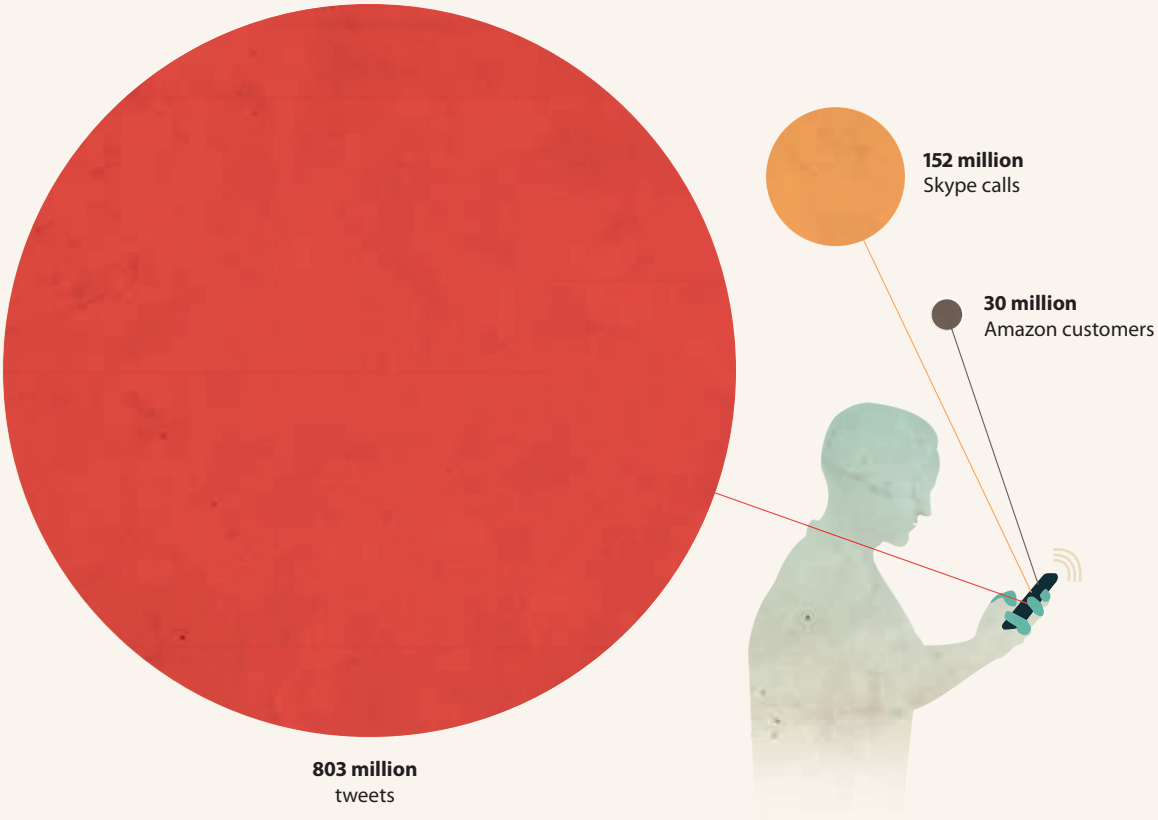
We live in a world where digitalisation has already penetrated multiple aspects of our lives; we need only consider the impact that an extended internet blackout would have to grasp this fact. The water supply and traffic networks would grind to a halt, as would communication, payment and production systems. But digitalisation has also become an integral part of our everyday lives on a smaller scale.

For example, life without a smartphone would be unthinkable for most of us. But these mass-market products to which we have become so attached, such as the iPhone, have not been around that long. Apple began selling its first model in 2007. Now two thirds of the German population own a smartphone, and this share rises to over 90 per cent among younger people.[6] For today's *smartphone generation*, accessing the internet primarily through mobile devices has become second nature.[7]

Mobile phones are more than a mere technological status symbol. They are a practical tool to access the world, a medium that conveys experiences and shapes our views and beliefs. Smartphones are the gateway to social media networks, where we establish contacts and communicate with our friends, as well as share the latest news.[8] To many, they are the essence of modern life: a digital tool for connected people to organise their lives. Smartphones organise us temporally and spatially (calendars and satnavs), offer endless opportunities for entertainment and consumption (from instant messaging to delivery services) and provide us with knowledge of the world (breaking news, news portals, Wikipedia

Figure 3.2.1: A day in the online world

Source: World Bank, 2016



and Google). We can now access nearly every service 'online'. All this means that people in Germany now whip out their smartphones, on average, every 10 to 15 minutes — the equivalent of 60 to 90 times per day.[9] Yet, whose 'new normality' is this?

Globally, the rapidly growing trend towards digital networking is neither evenly spread nor socially inclusive. Rather, the digital world is the arena of the urban middle and upper classes. Around 60 per cent of the global population — especially those on a lower income and women in particular — have no access to the internet.[10] They are still living in an 'analogue world', mainly in the Global South. And yet, despite being excluded from the digital world, they are nonetheless affected by digitalisation. Smartphone production reveals the intricate links that exist between the analogue and digital worlds, as well as modes of living and production. Our elegant smartphone touchscreens reflect the promise of progress through technology, and seem to represent the key to an immaterial future, where a mere swipe of the finger moves the world and lets dreams come true. Whilst they may be beautiful, if we figuratively scratch beneath the spotless glass surface, we will see the social and environmental costs of the virtual world of smartphones.

Digitalisation's material costs: the smartphone

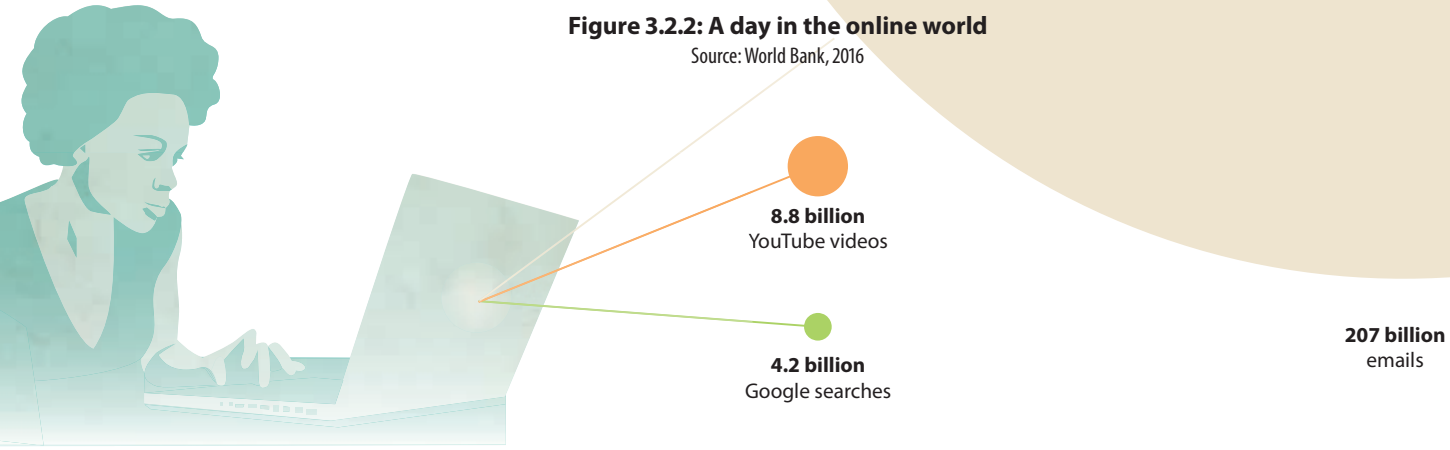
The smartphone market is booming. In 2010, 300 million units were sold globally; just five years later, this figure increased to a staggering 1.4 billion. Sales annually generate a €380 billion turnover.[11] A handful of large corporations, in particular, Apple and Samsung, dominate the profitable business and jointly hold a 40 per cent market share.[12] By investing heavily to perfect its corporate image, Apple managed to reap over 90 per cent of the profits in the sector in early 2015[i]. This means that the company is able to charge high prices in spite of relatively low production costs.[13] Although an iPhone costs several hundred euros, Apple spends less than a third of the overall cost on production and salaries, netting nearly 60 per cent as gross profit (before expenses in US) whilst another 10 per cent goes to suppliers in Asia, Europe and the US (Figure 3.3).[14]

Apple can do this because the company does not operate its own factories. Instead, the company organises iPhone production through a complex network of global value chains with next to no regard for the high-tech industry's promise to usher in an era of wealth and progress. Contrary to the narrative we are encouraged to believe, the economic dynamic that fuels the smartphone boom is not solely built around the smart ideas of business gurus like Steve Jobs. Rather, it results from comparatively cheap raw materials (if we consider the retail price) and the low wages of factory workers. Nowhere else is the imperial character of the digital lifestyle demonstrated more clearly than in the materials required for smartphone production.

Raw materials for a smart world …

Smartphones require around 60 different elements. Alongside plastic, glass and ceramic, these include around thirty different metals. Although touchscreens, batteries, circuit boards and cameras contain only tiny amounts of most of these materials, current production levels of around 1.4 billion phones per year are putting a huge strain on resources.[15] Mobile end devices, such as smartphones or tablets, are lightweight and therefore do not seem to require large amounts of materials. However, 14 iPads contain roughly the same amount of tin as a single car.[16] The production of mobile devices thus currently requires significantly more tin than the global automotive industry. Moreover, the sector growth is significantly higher. Tin is therefore just one example of the massive impact our digital normality is having on populations seemingly uninvolved in the digitalisation process. One third of the tin currently found on global markets is sourced from the Indonesian islands of Bangka and Belitung. Tin mining destroys the livelihoods of the local island population: forests are cleared, toxic tailings pollute the marine flora and fauna, and soils become infertile.[17] However, tin is not the only industry to see an increase in demand and, with it, the social and environmental impacts of extraction.[ii 18]

Figure 3.2.2: A day in the online world
Source: World Bank, 2016



i In autumn 2016, Apple fans queued up in front of stores in London, Berlin and New York — camping in tents or paying other people to queue for them — to be the first to get their hands on the new iPhone 7 ahead of the official launch.

ii The digitalisation of industry, dubbed *Industry 4.0*, is set to increase the demand for lithium, rare earths, tantal and many other raw materials.

According to the United Nations Environment Programme, the extraction of primary resources has increased threefold over the past 40 years — although we already know that such an increase in consumption by far exceeds planetary boundaries.[19]

… and their neocolonial fundaments

Yet, who profits from this ruthless exploitation? Raw material extraction and trade reveal the continuities of global structures of exploitation that have grown out of the historical legacy of 500 years of European colonialism (see Historical overview).[20] Whereas some regions, particularly in the Global South, depend on the export of primary resources for the global markets, the consumption of higher-end products is concentrated mainly in the Global North. In the richer countries of Europe and North America, the average per capita consumption of resources is ten times greater than in countries with significantly lower purchasing power.[21] Under the current conditions of the international division of labour, countries such as the Democratic Republic of Congo, Bolivia and South Africa are limited to providing the raw materials to sustain our information and communications technology (ICT).[22] As the world's largest importer of raw materials, a great deal of responsibility for the current situation rests with the EU, an organisation that actively advocates the interests of European industries to acquire raw materials from the countries of the Global South at the lowest possible price.[23] To achieve this goal, both the EU and the German government's raw material strategies focus on a mix of trade agreements and economic pressure.[24] Critical voices call this neocolonialist because it sees wealthier nations consciously exploiting their power to perpetuate these relations.[25] This is not only about gaining access to cheap raw materials to produce digital technologies and machinery.

> ***»New technologies and products that combine raw materials in completely new ways lead […] to a dramatic increase in the demand for economically strategic raw materials that are indispensable to the high-tech industry, such as iridium for flat screens, lithium for batteries or germanium for fibre optic cables.«***
>
> (Johanna Wanka, Federal Minister for Education and Research, 2016)

The existing international division of labour sees raw-material intensive industries, and the nations housing them, actively pushing the enormous costs, including social and environmental burdens, of their activities onto other regions and populations. The number of conflicts over social and environmental issues between transnational corporations and local communities has mushroomed, particularly in countries of the Global South.[26] Often these conflicts arise because transnational corporations (see Glossary) and the world's middle and upper classes are trying to satisfy their insatiable appetite for raw materials, and it is local populations who have to pay the price, sometimes with their livelihoods. This is frequently linked to the violent repression of local protests at the hands of national 'security forces' or paramilitary militias.[27]

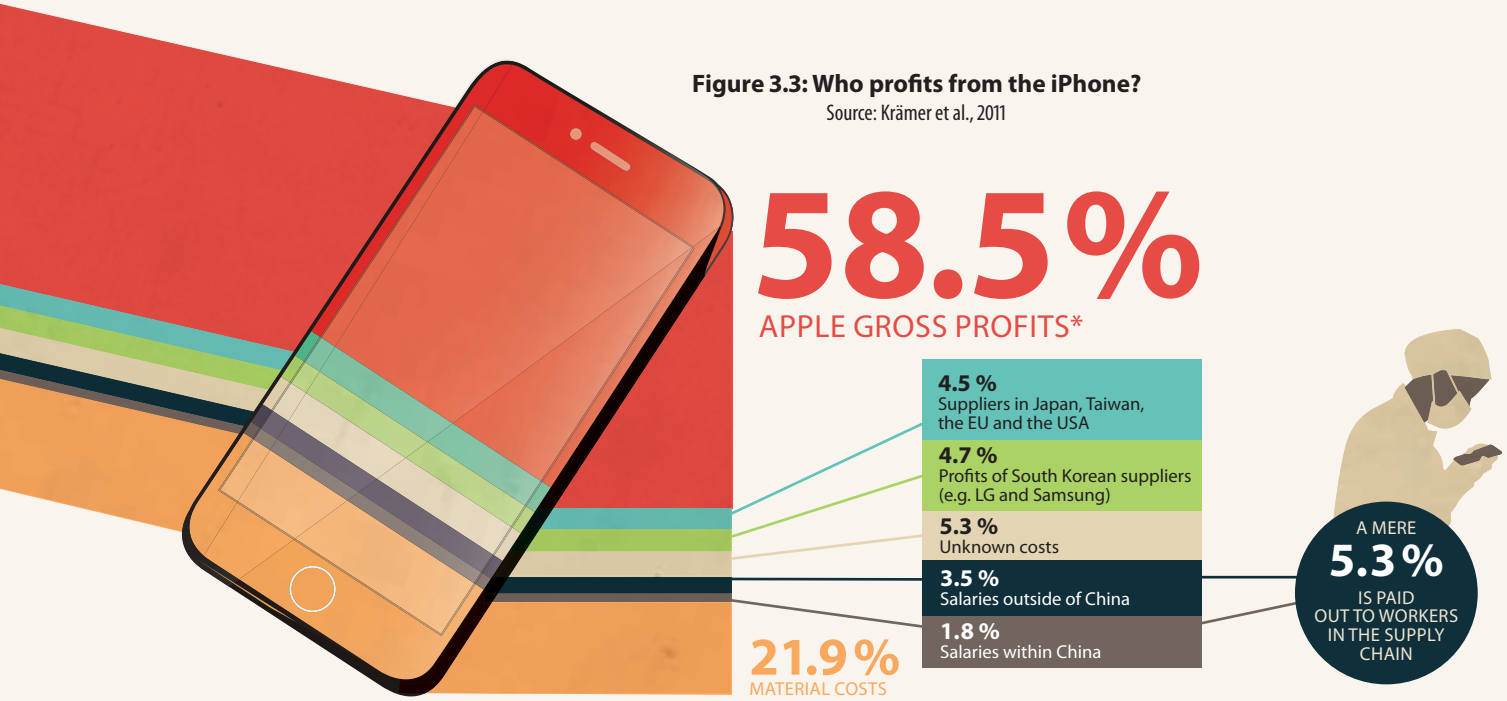
Efficient, but by no means sustainable

Even though the worlds of politics and business are keen to portray modern ICT as a means to reduce society's environmental impact, at present these technologies are actually driving the reckless exploitation of raw materials, and subsequently causing tremendous damage to communities and the natural environment. The picture is equally bleak in terms of energy consumption and CO_2 emissions. The rebound effects (see Glossary) are similar. Internet energy consumption is increasing rapidly and will continue to rise because the gains in energy efficiency cannot keep pace with the speed at which the hunger for data grows.[28] The internet consumes around five per cent of total global energy, in spite of the fact that less than half of the global population has access to it. End device production and use, however, are not the only factors driving this massive increase in energy consumption. Data and data processing centres are also part of the equation. It thus comes as little surprise that in 2012 Apple and Samsung's combined greenhouse gas emissions were greater than the total amount emitted by Slovakia.[29] The environmental costs are irrelevant because international agreements to protect the climate, which are already weak, concern governments and do not apply to transnational corporations. Moreover, states provide significant subsidies to reduce the cost of energy (see Mobility). According to estimates, the expanding industries of the ICT sector are already responsible for around three per cent of global greenhouse gas emissions. Regardless of the environmental impact, the sector is set for further strong growth.[30]

iSlaves in invisible factories

Smartphone production also serves to illustrate how digitalisation has accelerated the processes in many sectors. In recent years, the delivery and production time for these devices has dropped significantly (see Mobility). Whereas in 2007 it still took about six months to produce an iPhone, just five years later, Apple had slashed this to under two weeks.[31] This is indicative of the amount of pressure Apple must be applying to production chains — pressure that invariably goes hand in hand with abuses of labour and human rights standards. The most obvious example is Foxconn, an Apple supplier that came to prominence following a string of suicides at its plant in 2010. Foxconn has over a million employees and is by far the world's largest electronics company. Together with lesser-known companies, such as Pegatron, Flextronics, Jabil Circuit, Sanmina and Celestina, Foxconn controls around 80 per cent of all brand products in the electronics sector.[32] While these companies are the ones actually producing our electronic devices, they usually remain invisible, hidden behind the brand names under which they sell their products. It was only after the media reported on working conditions at Foxconn that civil society began to voice its concern, leading these companies to become more widely known and forcing them to 'improve' labour conditions in factories, at least to a certain degree. For example, in recent years the basic monthly wage at Foxconn was increased from 135 to 285 euros. The company has also implemented a working hours cap of 60 hours per week and in the factory's dormito-

Figure 3.3: Who profits from the iPhone?
Source: Krämer et al., 2011



Gross profits refer to the revenues Apple retains after deduction of all payments that occur outside the company. Apple still pays research and development, marketing, as well as other indirect costs from its gross profits. No data is available on these costs.

ries, 8-bed rooms have become the norm. Rising wage and production costs, however, led Apple to switch to Pegatron, a cheaper competitor. A 2015 survey revealed that working more than 60 hours per week is the norm at Pegatron and over half of all employees accumulate 90 or more hours of overtime per month. The majority of employees (most of them female) state that they 'voluntarily' work overtime because the basic wage does not cover the local cost of living.[33] Of the billions Apple makes, less than five per cent go to the workers that produce Apple products.[34] Of course, Apple is not the only company that operates in this way. None of the large electronics corporations (such as Microsoft, Samsung or Sony) guarantees a living wage to employees across their value chain. One reason for this is that even when labour rights, such as the freedom to unionise and collective bargaining, formally exist, they are largely ignored by suppliers.[35]

Unfortunately, such severe worker exploitation is not limited to the electronics industry. There are also reports of 'invisible mines' or electronic waste dumps where people (in many cases children) work under slave-like conditions (**modern slavery**, see Glossary), mine raw materials or recycle them from waste products.[36] The digital age, therefore, far from being immaterial, relies on access to raw materials and labour gained often through the use of violence.

The digital economy: a battle over a land of plenty?

The digital economy's material consumption alone promotes exploitation. At a more general level, it also facilitates an imperial appropriation of external labour and resources (also in the form of data) that are readily available anywhere and at any time, increasingly becoming part of our digital normality. The digital economy provides unexpected new opportunities, in particular due to its own unique logic and specific features. Once online, users can copy and forward digital data, such as music files, software programmes or pictures, endlessly and at next to no cost. The more often people use a specific digital application, the better it frequently tends to become. Unlike a smartphone, which only a small number of people can share, if at all, applications such as Google or AirBnB tend to become better and have greater appeal the more people use them. Often, this is described as positive *network effects* (see Glossary). From an economic point of view, the digital economy is a paradise where scarcity no longer plays a great role and abundance reigns. This is but one reason why internet services are so attractive to millions of people.

For profit-oriented businesses, however, the capacity to endlessly copy and share data and software is a problem. If digital goods and services are (in principle) available for free, opportunities for profit-making become scarce. Data access and ownership — the 'gold of the digital age' — is therefore a key battleground. Large corporations, banks and investors realised this fact long ago.[37]

> *»Finance capital instinctively understands that 'data' offers future opportunities to earn unbelievable amounts of money. This is the reason for the exorbitant market capitalisation of corporations such as Google, Facebook, Apple, Amazon and others.«*
>
> (Theodor Weimer, spokesperson of the board of HypoVereinsbank)

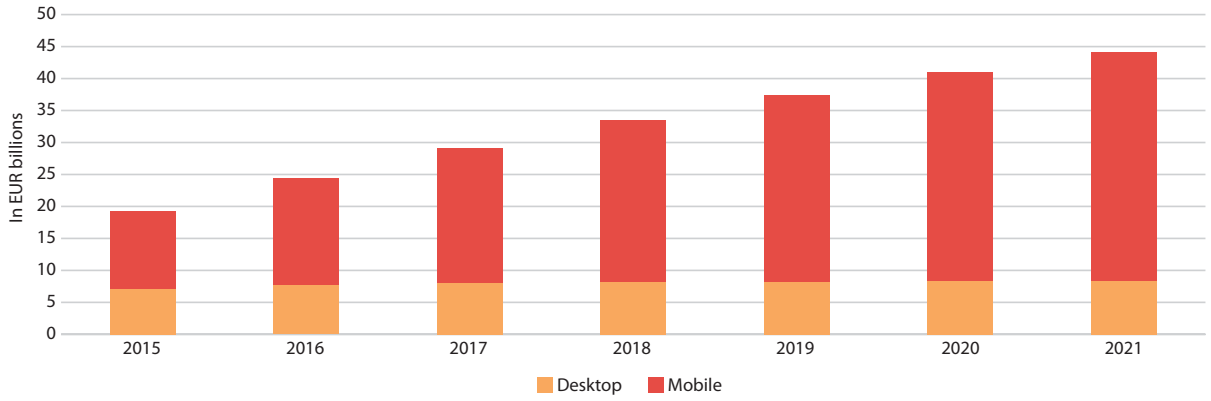
Internet corporations' profits are largely built on their ability to collect the rapidly increasing amounts of data and 'mine' (**data mining**, see Glossary) this resource for valuable information on a huge scale. However, obtaining a profit from data depends on the ability to artificially manufacture scarcity, which translates into finding ways to restrict access to information, software or, more generally, to the use of digital technology.[iii]

Commercialisation of the internet and doing business

iii Their capacity to do this results not least from the insufficiently clear legal status concerning who owns and who may use data. (Some regulation does not sufficiently incorporate the interests of individual users.)

Figure 3.4: Estimated global turnover of social media advertising in EUR billions, 2015–2021

Source: Statista, 2016f



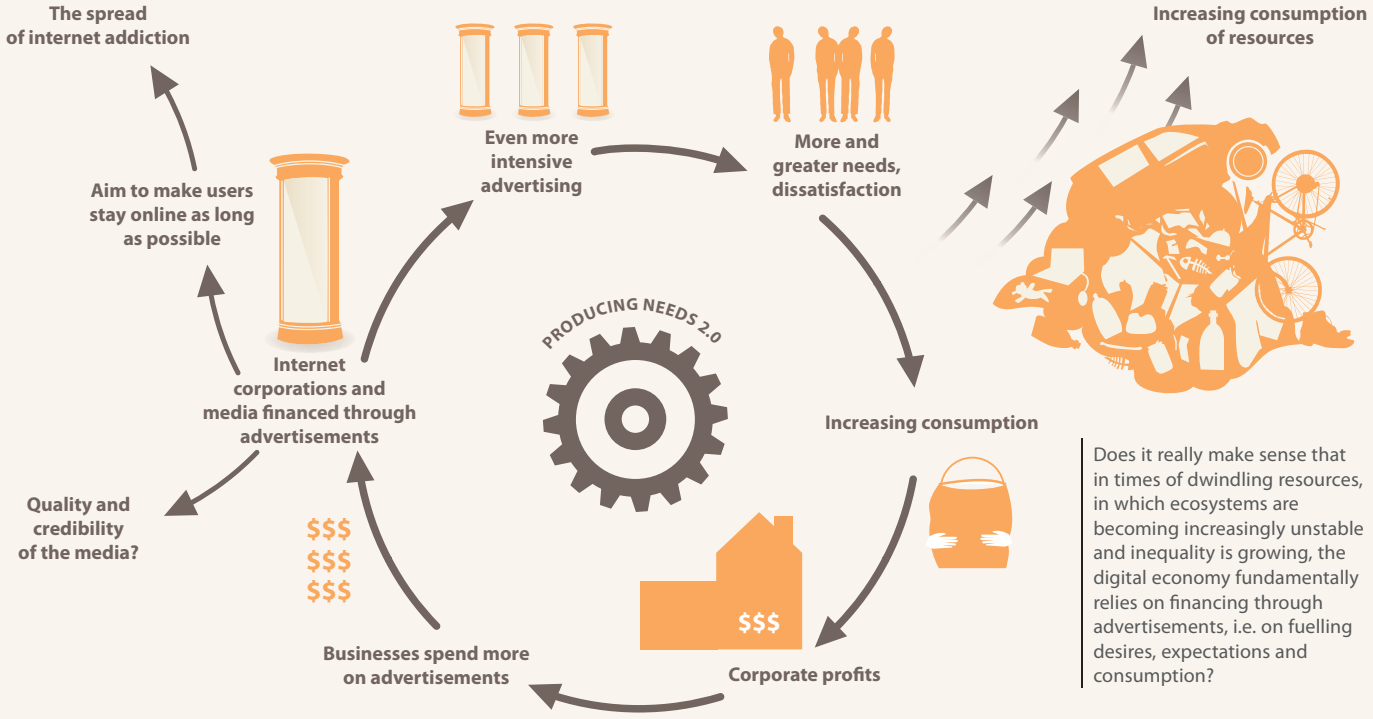
with data

At a first glance, services such as Facebook, Google or Amazon appear to be free. However, users 'pay'[38] for them through the data they produce, which these services then turn into a profit, for example, to market their products or by selling this data to third parties. To minimise risks (and, ultimately, costs) insurance companies, for example, eagerly buy sensitive data from businesses selling mobile end devices such as smartphones or fitness trackers. This allows them to adapt health insurance policies ever more accurately to their clients' personal risk profiles. For the sick and those whose lifestyles do not meet the requirements of the insurers, finding affordable coverage becomes hard or even impossible.

This example highlights the degree to which internet corporations and digital applications are becoming entrenched in ever more aspects of our lives. As the analysis of the material costs of digitalisation revealed, the lifestyle of the world's middle and upper classes is based on the appropriation and exploitation of the work and resources of others. In the digital economy, however, large swathes of the alleged 'winners' are finding themselves under increasing pressure. What is more, as potential sources of data, they are also being 'exploited'.

The fact that people still generally do not perceive the appropriation of private data and the digital intrusion into ever-wider spheres of their lives as problematic is related to a further pillar of the business model used by internet corporations: advertising. For these corporations, advertising is a key source of income. As data can be copied endlessly, the internet now allows advert reach to be significantly expanded. And through big data analysis, corporations can tailor advertisements to specific target groups with increasing accuracy. This turns internet advertising into a highly lucrative business. Advertising in social media alone generates billions in turnover, and growth prognoses predict a bright future (Figure 3.4).[39] In addition, advertisements generate active and passive social approval of the current private property-based and profit-oriented digital economy model, making it appear as the only available option. As an analysis of the so-called sharing economy (see Glossary) reveals, however, the dreams and tempting offers advertised by internet corporations frequently promote the unilateral appropriation of resources and labour.

Figure 3.5: Advertisements – a sustainable business model?



Does it really make sense that in times of dwindling resources, in which ecosystems are becoming increasingly unstable and inequality is growing, the digital economy fundamentally relies on financing through advertisements, i.e. on fuelling desires, expectations and consumption?

Imperial aspects of the sharing economy

As the name suggests, this sector is purportedly about sharing. People use internet platforms to offer ride shares or a place to sleep. This highly popular form of sharing provides many people with a feeling of community and a sense of meaning. Evidently, organising the efficient sharing and use of goods through digital media platforms makes a lot of sense, particularly from an environmental point of view. Many profit-oriented internet platforms have, however, also jumped on the bandwagon and now use the sharing rhetoric to further their business interests, which have very little in common with sharing and co-operation. These platforms generate profits from operating fees and commissions, as well as from selling advertisements and data (see above). Compared to non-internet-based service providers, they offer significant advantages. Through their international reach, for instance, they can reap profits globally and take advantage of the network effects mentioned above. In recent years, we have repeatedly witnessed such platforms rapidly upending entire industries, e.g. Airbnb and Uber have respectively shaken up the tourism sector and the taxi industry. As they neither have nor need a large physical infrastructure, they can react very flexibly to local developments and conditions. They resell resources and services that other people provide — mostly for free. These companies use our data, cars, flats, labour and, most notably, our time.[40] In today's sharing economy, sharing is often only a one-way street, as internet pioneer Jaron Lanier knows all too well.[41] Furthermore, these companies often develop in new and therefore unregulated environments.

> ***…the idea that we create a Sharing Economy in which normal people are expected to share and the few corporations at the heart of the system reap the entire profits is not sustainable.«***
>
> (Jaron Lanier, internet pioneer)

Thus, they are able to avoid paying taxes and evade anti-discrimination legislation or regulations designed to protect workers' rights, enabling platforms to quickly become the dominant force in a market or even develop into monopolies. Those individuals and businesses who want to sell products over the internet thus feel substantial pressure to sign up to the most common platforms, which again strengthens the established networks and contributes to their further growth. Individual users, consumers and service providers also feel similar systemic pressures if they wish to take advantage of the opportunities offered by the digital world.

Smart exploitation and crowding out?

Beyond the sharing economy, internet platforms are also generally becoming increasingly popular, whether it is platforms for food (Deliveroo), clothes (Zalando) or consumer products, e.g. smartphones (Amazon). For customers, free of charge home delivery is fast, convenient and often cheaper.[iv] Hardly anybody sees ordering online as a problematic practice or as a form of imperial appropriation. Nonetheless, it should be self-evident that if these services are so cheap, somebody must be paying the difference. Digital anonymity greatly helps to conceal the conditions under which these services are provided, and products produced and transported. People who click-buy their new smartphone or a €5 T-shirt cannot see the inhumane working conditions or environmental damage caused by global production and supply chains (see Mobility). And although ordered goods can only be delivered free of charge because working conditions at Amazon logistics centres and parcel service providers rely on temporary employment contracts, as well as wage and social dumping, the consumer has no obvious way of knowing this when they place their order. Such conditions are, however, widespread among these new 'smart platforms'. Often, the growth of these platforms goes hand in hand with the spread of precarious employment conditions. Current talk of the "return of the servants"[42] is by no means accidental. The social standards regulating other branches often do not apply to jobs on such platforms, in part because legislators are permanently playing catch up to these businesses and their practices.[v]

Yet it is important to note that digital information and communication systems also facilitate the monitoring of work processes. Does a particular worker at Amazon take longer to walk a certain distance in one of Amazon's warehouses? Or is an employee not using her computer for longer than expected because she is chatting with a colleague? By using smart tracking systems, cameras and microphones, companies can visually and even acoustically monitor employees in real time.[43] Digital networks thereby allow companies to exploit labour more extensively, and to contain resistance more effectively. Identifying and replacing insufficiently productive workers, or those who fight for fairer working conditions, has become easier than ever.

Consequences of the digital economy: more winners and fewer losers?

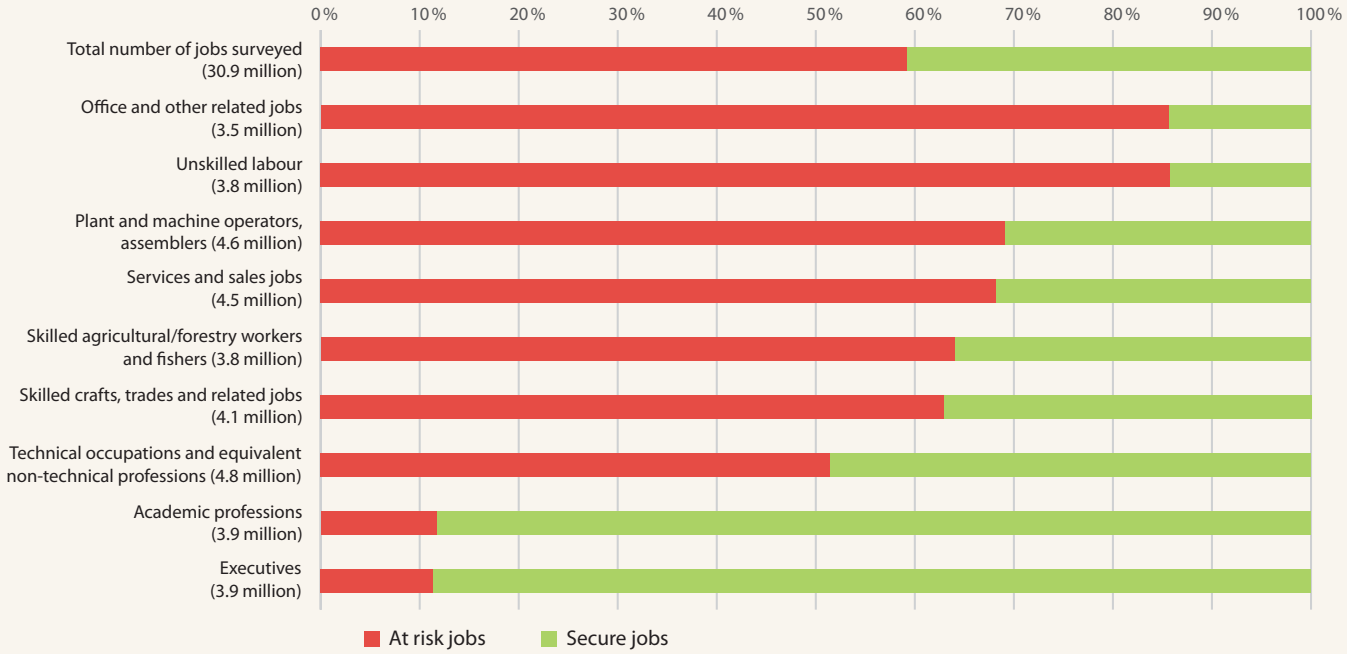
Evidently, the growth of the new digital economy is not solely built on exploitation and monitoring. And it is also not just limited to sharing-economy businesses predominantly in the services sector and internet platforms. Industry associations and politicians are dreaming of another Industrial Revolution. The German government is pushing an agenda, dubbed *Industrie 4.0*, to actively promote such a revolution. 'Intelligent factories' are to produce self-driving cars or solar panels for the energy transition. Digital logistics are already at the heart of global production and supply chains. Now, however, digitally networked production lines and logistics systems will have the power to self-organise without human intervention. The further automisation and networking of industrial production will undoubtedly generate significant boosts to productivity. But in an economic system such as ours, one that is so centred on wage labour, it remains unclear how people can expect to earn a living in the future and how we

iv Particularly important for people with little leisure time or money.

v These companies are not only always one step ahead of legislators. The anonymous, often international and not socially integrated crowd finds it hard to come together to demand changes to working conditions (Felstiner, 2011; International Transport Forum, 2016; Schwab, 2015, pp. 100–108).

Figure 3.6: Jobs threatened by digitalisation (estimates)

Source: ING DiBa, 2015



can fairly share the benefits reaped from the productivity increases generated by the digitalisation of production. Society could invest in increasing leisure time or improving the material wealth of broad segments of the population. Currently, efficiency gains serve mainly to increase exploitation and reduce human labour in what appears to be an attempt to cut wage costs to zero. Such forms of 'intelligent production' promote a redistribution to the benefit of the ever-smaller circle of people who already profit most.[44] This has severe consequences not only for the future of work but for people's opportunities to participate in society. The labour market pits a very small group of well-paid and highly qualified people against an ever-greater number of labourers in precarious employment who are either 'poorly qualified' or whose qualifications digitalisation has made redundant.[45]

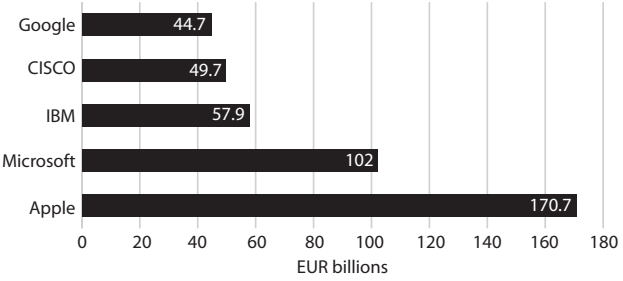
Even the sternest proponents of digitalisation estimate that over the course of the next ten to twenty years, around 50 per cent of all jobs will become automated across all countries in the Global North (Figure 3.6).[46] As it allows them to axe jobs and therefore save substantial costs, this is a highly welcome development for businesses and the owners of capital. For large segments of the population, however, the picture is very different. In future, they could very well only have the choice between having a precarious job, for example, delivering food for Deliveroo or parcels for Amazon, or no job at all.

Tax evasion: we all pay the price

But where is the new wealth generated by the digital economy going? We know one thing for sure: it certainly isn't going into public investments for the public good. For the pioneers of the digitalisation revolution, 'tax evasion' has become the norm. Five large US internet corporations have hoarded over €420 billion in tax havens (Figure 3.7).[47] This is no coincidence: digitalisation and global networking — the tech industry's core fields of expertise — provide huge potential for tax avoidance and evasion.[48] Companies can move and hide money anywhere in fractions of a second, register accounts and offices in tax havens in little to no time and easily declare profits in those countries offering the lowest tax rates.[vi] Far from being the only ones, tech firms have particularly taken advantage of the new opportunities offered by such practices, which also contributes to the inequality generated by digital networking.

Figure 3.7: Sums deposited in tax havens by US tech companies in EUR billions based on 2014 data

Source: McIntyre, Phillips and Baxandall, 2015



vi Corporations can also do this particularly well because of the difficulties of objectively establishing the value of digital products, software or algorithms. This enables inflated write-offs and promotes strategies to avoid taxes. Political instruments against such corporate practices, which effectively involve the illegitimate expropriation of states, are still lagging behind.

A socio-ecological transformation in times of digitalisation?

The degree to which the digital age fails to fully realise its potential is downright absurd. Digital technology abundantly provides socially produced goods, services and information at unbelievably low cost. Brand new opportunities have also arisen, such as the possibility to reduce employees' workload or efficiently share goods in a way that benefits communities and the environment. Society, however, cannot tap into this potential, mainly because a web of monopolies, banks and governments is attempting to continue the current economic model, which is based on growth and private profits, into the digital age.[49] Digitalisation is thus merely accelerating the speed at which capital, data and power are being concentrated in the hands of a few. The financial markets also complement this new dynamic to create global property and dependency relationships that benefit a tiny elite (see Money and finance). This development is reminiscent of the era of feudalism, and thus also referred to as re-feudalisation (see Glossary).[50]

Back to pre-democracy with modern means?

Increasing inequalities are causing mounting social and economic tensions around the globe and leading to greater instability. To sustain the current property and power relations that work in their favour, the beneficiaries of the established system are increasingly turning to digital 'structures of security'.[vii] In addition to comprehensive monitoring programmes, this includes digitally controlled combat drones and robots, automated border protection facilities and cyber weaponry.[51] Whereas the implications of these developments for democratic societies may seem less problematic at first, the picture is different internationally, particularly regarding authoritarian regimes and tendencies.

Could we not make more sensible use of the potential of digitalisation than we currently do? Bound into a broad socio-ecological transformation, digitalisation could provide key contributions to a sustainable and solidarity-based future economy and mode of living. If digitalisation is to unleash its full positive potential, three aspects are of particular importance:

1. Developing different approaches to labour and resource use

Digitalisation currently does not lead to a sustainable use of resources. Rather, it leads to increasing energy and raw material consumption. In the long term, earth's ecosystem cannot bear the excessive burdens placed on it by industrialised nations; a world in which every nation adopts the same lifestyle as the Global North must thus be avoided at all costs. In the face of such large sections of the global population who have yet to profit from digitalisation but whose livelihoods and labour are often affected by it the most, there can be no justification for today's excessive consumption of raw materials. A socio-ecological transformation will require finding the means to reduce raw material and energy consumption in absolute terms. Particularly, countries of the Global North will need to act.[52] Simply focusing on technological solutions or on increasing efficiency will not solve the problem. Strategies to increase service life or shared use (and not only of electronic appliances), improving reparability and recyclability, or even a circular economy, are undoubtedly important elements of a transformation. ICT, in particular, can help to efficiently develop and implement such a transition. A more realistic factoring in of the actual environmental and social costs — and correspondingly raising, for example, energy prices — would also be an important step forward. Ultimately, however, we will have to abandon the growth paradigm (see rebound effects), as only this will allow true change to occur. As much as the conditions of industrial production will need to change, so too will our social values. Something has clearly gone wrong when our economic system provides incentives for the greatest number of people to buy a new smartphone as often as they can.

Forced, precarious and degrading forms of labour, which are currently an inherent feature of the global (digitalised) economy, have no place in a sustainable economy. It is simply unacceptable that a large percentage of those who produce goods and create value receive only a fraction of the profits in exchange, while multinational corporations and their owners earn billions that they then deposit in tax havens. Society (globally) needs to redistribute the profits of digitalisation for the benefit of everybody. Taxing automated work could be an option, as well as the consistent taxation of multinationals. Importantly, we need to reduce people's dependency on (precarious) salaried work and show greater appreciation for other forms of social activity (see Care). Digitalisation-based boosts to productivity could be used to introduce a 20-hour working week at full salary or to fund an unconditional basic income scheme.

2. Developing an economy of sharing

In the battle to gain control over the world's new promised digital land, large corporations earn money with data by artificially limiting the access to and opportunities to work with digital information. However, the potential is there for the digital economy to be organised very differently. Instead of accepting the exclusive use and control rights imposed, for example, by Microsoft and Mac OS, we could opt for an open source OS such as Linux that encourages a community of users to further develop the system. Here the goal is not sales figures but improving usability. Many only use the software passively, but some voluntarily and actively contribute to its development.[53] Unlike in hierarchical (also state-owned) companies, in these set-ups, user-generated rules take the place of rigid command structures. Efforts are not focused on the production of goods and services to maximise profits, but rather on shared contributions, usage and participation.[54] This is a typical feature of commons (see Glossary), a non-market and non-state form of organisation and production.

vii The link between digitalisation and security policy has been a key element from a very early stage. In the US, for example, the ICT industry largely evolved out of the military-industrial complex. The information leaked by Edward Snowden revealed the extent of government surveillance programmes and the close collaboration of the secret service community with corporations.

But such economic forms have now progressed far beyond simple small-scale experiments: 90 per cent of the 500 fastest supercomputers already run on the free Linux operating system.[55] And the principles of an inherently commons-based economy can not only be found in operating systems and in software: not-for-profit property, organisational and production structures exist in many spheres of life. In the food sector, for example, community supported agriculture is taking shape (see AGRICULTURE AND FOOD), and shared cargo bikes are appearing in cities (see MOBILITY). Digital technologies can provide a key boost by connecting and organising these different approaches. They even hold the potential to arrange the distribution of goods and services in completely new ways: they can identify, coordinate and satisfy needs away from the commercial market. Digitalisation could become a building block to construct an economy that supersedes the "logic of money and exchange".[56]

3. Democratising digitalisation

The trends towards a greater concentration of markets and power, as well as of control, are not compatible with democratic constitutions and values. It is important to point out the authoritarian tendencies of digitalisation and to show that we can develop more democratic approaches to this phenomenon. Networking with people from all over the world is already possible through the internet. For years, groups have also been testing out and developing new forms of decision-making and organisation online in the hope of finding ways to supplement democratic institutions. The problem we need to solve when it comes to digitalisation is therefore not technological but social. If today around 70 per cent of all those accessing news portals do so through digital monopolies, such as Facebook or Google, this poses a serious threat to democracy. All the more so when we consider that most of the media outlets that provide us with information are increasingly financed through advertisements. A prerequisite for a functioning democracy, however, would be the capacity to free ourselves from such dependencies. With enough political will and sufficient social pressure, we could define central digital services, i.e. social networks or search engines, as *public services* and develop them democratically.[57] Our new Facebook would thus have the potential to no longer be a profit-oriented corporation led by one of the richest men on earth, but a transparent foundation under public law. Further useful approaches could include the control of algorithms by independent commissions or caps on the size of (multinational) corporations.[58]

Discussing and implementing such measures will quickly provoke the resistance of those profiting from the current developments. However, whether or not digitalisation turns into a nightmare for the majority of the global population will depend largely on how we as a society harness the potential digitalisation offers. The digital age undoubtedly provides opportunities to develop an economy of sharing based on cooperation instead of competition, common ownership instead of property and common good instead of profit.

Do you agree?
Then get involved! More information is available on our website *www.attheexpenseofothers.org.*

Endnotes

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36 Fuchs, 2015
37 Weimer, 2016
38 Janisch, 2016
39 Statista, 2016f
40 Scholz, 2016
41 Jewell, 2016
42 Bartmann, 2016
43 Staab, 2016, pp. 92–104
44 Brynjolfsson & McAfee, 2014; Schwab, 2015, pp. 60–72, 205–206
45 Matuscheck, 2016
46 ING DiBa, 2015
47 McIntyre, Phillips & Baxandall, 2015
48 Collin & Collin, 2013; Peng, 2016; Zucman, 2014
49 Mason, 2016, p. 144
50 Stephan, 2015
51 Schmid & Cohen, 2013, pp. 292ff.; Welzer, 2016
52 AK Rohstoffe, 2016
53 Siefkes, 2014
54 Rifkin, 2014; Scholz, 2016
55 Siefkes, 2014
56 Habermann, 2016
57 Wagner, 2017
58 Mason, 2016, p. 277

GLOSSARY

This glossary provides short explanations of some of the terms used in the text. However, the list is by no means exhaustive.

Agroecology describes a social movement, academic discipline and agricultural practice. They all share the notion of adapting agriculture to prevailing natural conditions, cycles and local needs. As an approach, agroecology combines traditional and local knowledge with modern scientific methods.

Biodiversity: biological diversity, diversity of species.

Biosphere: the earth's 'life zone', i.e. the totality of all organisms, living creatures and ecosystems on the planet. Often we consider terms such as 'nature' to be a realm entirely separated from humans, and words such as 'resources' implicitly view nature merely with regard to the benefits it provides to people. The term biosphere attempts to avoid these shortcomings.

Capitalism: under capitalism, the market principle largely defines the social fabric. The means of production are concentrated in the hands of a few, thus forcing the majority of people to work. Competition and profit orientation lead to an intensification of the global exploitation of people and nature.

Carbon Capture and Storage: the process of capturing and storing CO_2. The aim is to capture, liquefy and store underground the CO_2 from industrial processes — in spite of considerable risks and the fact that the technology still needs to be further developed.

Climate justice: a political concept that serves to highlight that the climate crisis does not affect all people equally. While the global upper and middle classes, in particular, contribute towards climate change, those who suffer its consequences most acutely tend to contribute the least to global warming.

CO_2: carbon dioxide.

Colonialism: the violent subjugation of foreign territories (in particular in the Americas, South and South East Asia as well as Africa) by European countries. The structures and relations of power that developed during this era persist until today (see also 'neocolonialism').

Commons: goods such as water, seed or software that are used by a community. It describes forms of property, organisation and production that are not based primarily on private or state ownership and competition, but on community ownership, co-operation and participation.

Data mining: the systematic statistical analysis of large amounts of data or 'big data'. The method aims to produce (economically exploitable) knowledge or predict future developments.

Ecological footprint: the space that would be required to maintain the lifestyle and living standard of one person (under the current conditions of production) for all of humanity permanently.

Externalisation: the process of outsourcing social and environmental impacts to other places, or leaving them for future generations to solve. For the imperial mode of living and production, this constitutes a fundamental process.

Food sovereignty: the right of all people to decide over the processes of food production, distribution and consumption. Key to this concept is the development of a socially just and sustainable form of agriculture.

Genetic engineering: the transfer of isolated DNA sequences across different species. Genetically modified seed has drawn criticism because of the way it affects biodiversity, the unknown impacts it has on health and the environment, its emphasis on monoculture production without reducing the need for pesticides and seed patenting instead of promoting free seed exchange.

Global North/Global South are not geographic terms and describe the distinct position of countries in the global political and economic order. The terms also highlight the different experiences with colonialism and exploitation that underpin today's order.

Globalisation: the age of globalisation describes the recent great increase in mobility of information, goods and people. While this mobility has existed for thousands of years, its intensity has increased sharply since the middle of the 20th century.

Good life for all: the realistic utopia of a peaceful and solidary society that includes all people living in harmony with the biosphere. Today, pessimism and fear rule, making the concept seem utopian. From the standpoint of civilization and technology, however, it is a realistic vision.

Indigenous peoples: the descendants of a region's original inhabitants. The term stresses the self-identification of culturally, socially and economically distinct groups in society that may even have their own language. Human rights specifically for indigenous peoples guarantee their right to self-determination and to land.

Industrial agriculture: aims for efficiency in production instead of caring for animals, the environment and people. Monoculture fields and mass production as well as the use of chemical fertilisers characterise the system. It promotes large agricultural corporations instead of smallholder farming. Often, instead of catering to regional demand, this form of agriculture is strongly export-oriented.

Industry 4.0: the Fourth Industrial Revolution after mechanisation, mass production and automation. It aims to 'intelligently connect' digital technology and the physical systems of production. The German government, industry associations, unions and researchers drive this process forward.

Institutions: long-term established organisations that shape society such as parties, unions, churches, international organisations or education establishments. Some definitions will also include institutions with unique characteristics, for example, companies, the (mass) media, as well as parliaments, courts and ministries.

Land grabbing: a colloquial term for the heightened economic interest in agricultural land and the global increase in large-scale land buy-ups. Frequently, while legal, they lack democratic control over land access.

Market-based: according to economic logic or the fundamental principles of the market, i.e. driven by prices, supply and demand, etc.

Modern slavery: all forms of forced labour, human trafficking and debt bondage that (illegally) continue even over 150 years after the abolition of slavery. Globally, an estimated 30 to 50 million people work in slave-like conditions, in particular in agriculture, households and care, as well as forced prostitution.

Neoclassical economics: mainstream economic school of thought taught at universities since the middle of the 20th century. The concept is based on assumptions such as profit and utility maximisation, perfect competition and complete information. It omits or only insufficiently considers aspects such as questions of distribution, differing degrees of power, ethical concerns and environmental issues.

Neocolonialism highlights the economic and politico-structural dependencies that persist in spite of the formal independence of former colonies. Certain trade agreements, for example, force countries of the Global South into the role of suppliers of cheap raw material.

Neoliberalism: an ideology and economic policy model that purportedly promotes a 'free market' and insists that it is best for society to limit political interference in business and the economy as far as possible. Examples of neoliberal policies include demands for liberalisation, privatisation and deregulation. Originally, the term described ordoliberalism, the theoretical basis of the social market economy.

Network effects: an effect particularly prominent on internet platforms and in digital services whereby the attractiveness of a particular site increases with the number of its users (as seen with Facebook, Airbnb, Wikipedia and others).

Precarious employment: a job is considered precarious when the worker earns below a certain threshold, is not sufficiently protected and their salary does not allow them to participate fully in society. Gainful employment is also deemed precarious when it stops being meaningful, lacks social recognition and offers people no security to plan for their futures.[1]

Privatisation: the transfer of community property (owned, for example, by the state, communities or indigenous peoples) into private hands (owned, for example, by individuals, companies or corporations).

Racism: a balance of power that exists within society globally that sees people differentiated and hierarchized based on physical and/or cultural attributes and/or their origin or nationality. Being 'white' and 'Western' is judged to be superior to being 'black/non-white' and 'non-Western'.[2]

Re-feudalisation: the global trend towards the unequal distribution of money and power that resembles feudal medieval societies in which only a tiny elite enjoyed a comparatively high standard of living.

Rebound effect: the phenomenon of absolute energy and resource consumption not dropping in spite of efficiency gains in production, management and logistics. When productive efficiency increases, this leads to goods becoming cheaper, potentially causing consumption of that good to increase.

Sharing economy: a broad term for a growing economic sector that emphasises the shared use of goods or services (either on or offline). For successful companies in this sector, profits and not sharing are the main goal.

Sinks: parts of ecosystems that people use as deposits, for example, the atmosphere, seas or the soil under landfills.

Socialisation institutions: the reciprocal and open process, which shapes people and turns them into members of a society that is, in turn, shaped by its people, is called *socialisation*. In many societies, this process begins in families and schools, which would in this case be *institutions of socialisation*.

Transformation, socio-ecological: a fundamental transformation of political and economic systems away from fossil fuels and the growth logic and towards an economy that ensures a decent life for all. This goes deeper than a reform, yet is less abrupt than a revolution.

Transnational consumer class: includes the global middle and upper classes that follow a consumption-oriented lifestyle. When considering this concept, it is important to remember that discriminating structures such as racism and sexism persist.

Transnational corporations: since the end of the 20th century, the largest and most profitable companies are no longer bound to a particular country. Rather, they act as a network and secure advantages in production (cheap labour and resources or lower taxes) on a global scale across numerous countries.

Virtual emissions: emissions produced in third countries that are 'imported' by importing goods from these countries for further processing or consumption. Whereas production-related emissions in the Global North have stagnated or even declined, the imported emissions from the Global South are rapidly increasing.

White and black do not describe the colour of a person's skin but political and social constructs that underpin both discrimination and privilege in our racist societies. The term 'white' is mentioned here explicitly to underline its dominant position, which otherwise often goes unmentioned.[3]

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THE PROJECT AND THE AUTHORS

The I.L.A. Werkstatt, a project organised by the non-profit association Common Future e.V., began on 1 April 2016 and ended on 31 May 2017 under the leadership of Dr. Thomas Kopp.
The I.L.A. Werkstatt is an interdisciplinary collective of 15 young researchers and activists. We jointly developed this text over the course of a year. As a group, we hold university degrees in economics, development and agricultural economics, political science, political economy, international relations, pedagogy, environmental sciences, sustainability studies, history and law. In addition to participating in the I.L.A. Kollektiv, we study and work at universities, in non-governmental organisations, social movements as well as in and alongside trade unions. We are part of a diverse set of emancipatory movements within the broader field of global justice. This text aims to make the concept of the imperial mode of living accessible to a wider public and contribute towards a community-oriented mode of production and living.

If you have questions regarding content, feedback on specific chapters or would like to request a speaker or arrange a workshop with us, any of the members listed below would be happy to help. Please direct your queries to ila_info@riseup.net.
Further information is available at: www.aufkostenanderer.org.

Introduction:
Samuel Decker, Hannah Engelmann, Magdalena Heuwieser, Thomas Kopp, Anne Siemons

Historical overview:
Samuel Decker, Jannis Eicker, Ia Eradze, Anil Shah, Lukas Wolfinger

Digitalisation:
Anil Shah, Lukas Wolfinger

Care:
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Education and knowledge:
Hannah Engelmann, Ia Eradze, Maja Hoffmann

Food and agriculture:
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Mobility:
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Summary and outlook:
Samuel Decker, Jannis Eicker, Franziskus Forster, Magdalena Heuwieser, Maja Hoffmann, Thomas Kopp, Carla Noever Castelos, Anil Shah, Anne Siemons

ACKNOWLEDGEMENTS

There are a number of other experts whom we would like to thank for their valuable input over the course of the year: Christoph Bautz, Daniel Bendix, Ulrich Brand, Jana Flemming, Martin Herrndorf, Julia Otten, Sarah Schmidt and Markus Wissen. For their vital feedback and support, we would like to thank Emmanuel Florakis, David Hachfeld, Steffen Lange, Christa Wichterich, Paco Yoncaova and the Jugendumweltnetzwerk Niedersachsen (JANUN).

The translation of this book from the German original received generous financial support from the Rosa Luxemburg Foundation (Berlin, Germany).

Today it feels like everybody is talking about the problems and crises of our times: the climate and resource crisis, Greece's permanent socio-political crisis or the degrading exploitative practices of the textile industry. Many are aware of the issues, yet little seems to change. Why is this? The concept of the imperial mode of living explains why, in spite of increasing injustices, no long-term alternatives have managed to succeed and a socio-ecological transformation remains out of sight.

This text introduces the concept of an imperial mode of living and explains how our current mode of production and living is putting both people and the natural world under strain. We shine a spotlight on various areas of our daily lives, including food, mobility and digitalisation. We also look at socio-ecological alternatives and approaches to establish a good life for everyone – not just a few.

The non-profit association ***Common Future e. V.*** from Göttingen is active in a number of projects focussing on global justice and socio-ecological business approaches. From April 2016 to May 2017, the association organised the I.L.A. Werkstatt (Imperiale Lebensweisen – Ausbeutungsstrukturen im 21. Jahrhundert/ Imperial Modes of Living – Structures of Exploitation in the 21st Century). Out of this was borne the interdisciplinary I.L.A. Kollektiv, consisting of 17 young researchers and activists. Their goal: dedicating a whole year to the scientific study of the imperial mode of living and bringing their results to a wider audience.

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