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Magazine for a sustainable economy



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Topic

ACTION AND TRADE

From Negotiating to Trading Equitably “The Companies That Are Involved in Climate Protection Currently Have Interpretational Sovereignty over Our Future” Modern Strategies May the Force Be with Us Nothing for Honour A Further Step Towards Free Trade Trading in Transition

From Knowledge to Action

In German, the word Hand (meaning the human hand) is at the root of a wide range of words including 'to act' (Handeln), trade (Handel), to negotiate (verhandeln), fair trade and free trade. In every case, hands are involved, even when it comes to automatic stock trading. We take decisions with our brains, but it is the whole embodied individual who takes action. We act in a great variety of ways, but usually within the scope of rational, sensible behaviour – except when we act in an unreasonable way – and even in ways that can harm our own interests. We may not even realize at the moment when we act that we will eventually suffer the consequences of those unreasonable actions. At a later point, we may change our behaviour in order to rectify those negative consequences of our earlier behaviour. When people ask Thomas Jorberg, the spokesman for the board of directors of the GLS Bank, why there aren't more people who choose an ecologically and socially oriented bank, why we don't re-structure our financial and economic systems, or why people are moved so little by the transformation process to seek more equality and less consumption of resources, says that "people either act out of necessity or because they have acquired insight".

'From Knowledge to Action' is the title of a series of educational materials that were published by the Wuppertal Institute. With these resources, young people, for whom the acquisition of knowledge is a major part of everyday life, can obtain knowledge for action; they can become



the agents to achieve change in culture. Of course, whether or not they will succeed, we do not know.

The Paris Agreement, a binding non-binding agreement for limiting global warming to an increase of 2°C above preindustrial levels, is a successful step towards change. After 25 years of UN climate diplomacy, this agreement, which stipulates a contribution to climate protection from each country, has to be deemed a success both for the UN itself and for the world. Insight and knowledge have prevailed – and have painstakingly established a corridor for action. Whether the resulting actions are rational or not must be verified on a regular basis. It is hoped that competition will emerge for actions that will protect our environment. But the means for achieving this goal have not been specified and there will be numerous exceptions to the rules.

In his article 'From Negotiating to Trading Equitably', philosopher Bernd Draser explains why it is so difficult for minds and hands to work together. Dirk Messner, Chairman of the German Advisory Council on Global Change,

is convinced that it is also possible to achieve this regardless of the Paris Agreement: "The prerogative of interpreting the future now lies with the companies involved in climate protection." In 'Modern Strategies', Ilona Koglin comprehensively presents which tools can be used by people and societies in order to progress towards transformation. In 'May the Force Be with Us', Andres Friedrichsmeier investigates whether we are losing our autonomy and freedom of action when following the big data business model used by Google, Facebook and the like, or if it actually creates a chance for a democratic economy. With impressive portraits by the photographer Anja Weber, the article 'Nothing for Honour' shows that solidarity and helpfulness are generally part of human nature and that individuals as well as society benefit from this. Industry and

economic policy want to achieve an entirely different transformation by means of so-called free trade agreements. In 'A Further Step towards Free Trade', Alessa Hartmann discusses whether free trade agreements are sustainable. Finally, Manfred Ronzheimer's article 'Trading in Transition' is about the billion-euro business of the retail industry and online trade and 'slow retail' and its ecological and social implications. Those for whom the possibilities of trade and action seem too much to handle can always keep in mind my father's old saying: "Those who do nothing make no mistakes."

May this journal increase the power of your knowledge and lead you to choose the appropriate action and trade, or non-action and non-trade!

Ralf Bindel and the factory team



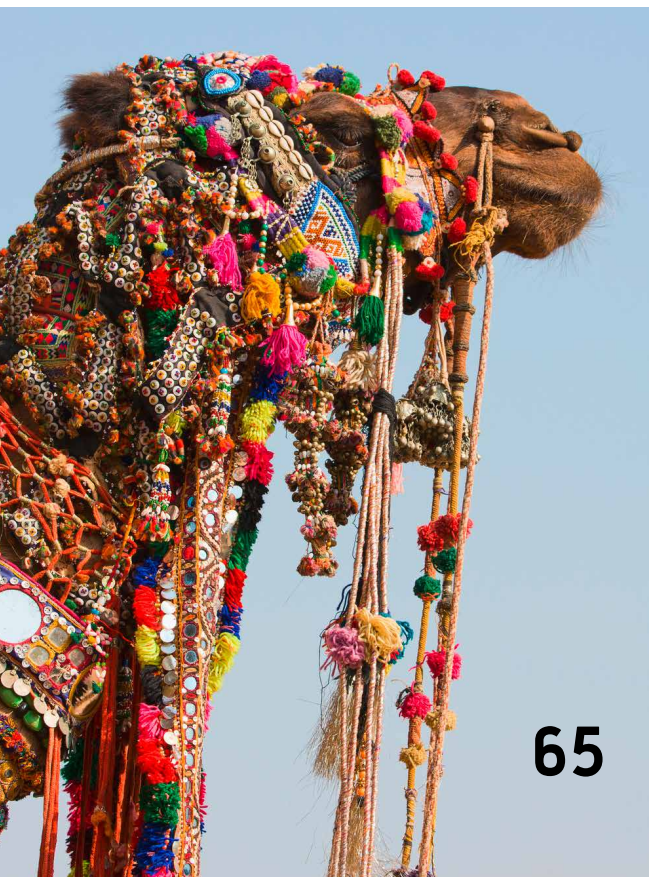
Inge Hannemann makes a stand against the drawbacks of Hartz IV (part of the German welfare system). (taz Panter Preis, Leserinnenpreis 2013).

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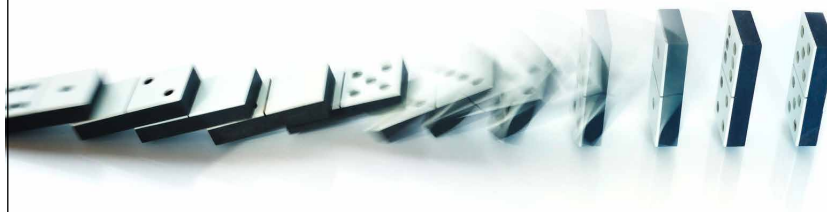
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A harmful crutch: In 2010, environmentally harmful subsidies cost the German state and taxpayers EUR 52bn, compared to 48bn in 2008. This figure amounts to 15 to 20 percent of the annual federal budget. Well-known examples of such subsidies are the energy tax exemption for commercial air transportation, energy tax concessions for the manufacturing industries and the agricultural sector as well as the free allocation of CO2 emission allowances. In the same year, the state and corporations spent EUR 35.8bn on environmental protection, including water conservation, waste disposal, air pollution control and noise management. Environmentally Harmful Subsidies in Germany, 2014 Edition, UBA

35

Foregoing profit: To limit global warming to 1.5 or a maximum of 2 degrees Celsius between the beginning of industrialisation and 2100, 80 to 90 percent of fossil fuels have to remain unburnt in the ground. What is at stake is a lot of power and money. Oil and coal reserves known around the world today have a value of EUR 35trn, or USD 35,000bn. In 2014, the US and Canadian oil and gas producers alone made USD 235bn in profit – not sales. During the climate negotiations in Paris, energy and mining companies lobbied so successfully that there is, in fact, no mention of oil, gas or coal in the resulting 32-page agreement at all. In contrast, the nuclear industry was able to present its ‘nuclear solutions’ for the environmental issue. Uli Brand, A Good Climate for Elites, fr-online.de, 20 December 2015

18.5

Work it out: In 2014, the manufacturers of the so-called low-emission diesel cars invested EUR 18.5m in the lobbying of the European Union. Volkswagen, the largest manufacturer of diesel cars in the world, spent a total of EUR 3.3m and employed 48 representatives for that purpose, more than any other car manufacturer. A Greenpeace study revealed that the German government as well as the European Commission were aware of Volkswagen's manipulation of exhaust emission tests yet turned a blind eye to them. Great Britain, France, and Germany are working to maintain the loopholes that exhaust emission tests are riddled with. 184 car industry lobbyists work in Brussels; 51 of whom have identity cards for the European Parliament. Energydesk Greenpeace, 25 September 2015

11,312

Right-wing terror: According to preliminary figures from January to the end of October 2015, the German police recorded some 11,312 offences committed by neo-Nazis and other right-wing extremists, including 759 acts of violence. 582 people were injured in violent incidents. Out of 5970 suspects, 151 were provisionally arrested, but only nine warrants were issued. Not all crimes have been reported yet, but the numbers are already higher than those of the year before. 3155 crimes were directed against refugees and other migrants, an increase of 40 percent in comparison with 2014. In October alone the police recorded more than 759 violent crimes with 582 injured people. By December, the chronicle of anti-refugee incidents counted 512 attacks on refugee shelters, including 121 arsons, with 245 people injured. 276 anti-refugee demonstrations took place. Frank Jansen, Tagesspiegel.de, mut-gegen-rechte-gewalt.de, 20 December 2015

0.03

Poor prospects: the trade agreement TTIP between the USA and Europe aims to reduce customs duties and 'unnecessary' regulations in order to liberalise transatlantic trade and facilitate reciprocal investments. Thereby, the countries are supposed to emerge from the crisis strengthened and in a position to compete with the growing Asian economies. The projected growth impulses, however, are small: the USA could grow by an additional 0.96 percent annually and the EU by an additional 0.34 percent (ifo Institute, Bertelsmann Foundation). A study conducted by the Centre for Economic Policy Research anticipates an additional growth of just 0.03 percent for the USA and the EU. Studies have shown that the exchange rate fluctuations between the euro and the US dollar affect the expansion of trade more than low customs duties. A scope of exchange rates influenced by central banks would be more effective than free trade agreements. Ansgar Klinger, Forum Wissenschaft, 7 October 2014

476,294

High trading volume: the company with the highest revenue in the world (2013) was the Walmart retail corporation with earnings of USD 476.3bn. Among the other ten are oil companies such as Shell, Sinopec, ExxonMobil and BP, car companies such as Volkswagen and Toyota, and the Swiss commodities trader Glencore. In the list of the 100 biggest companies there are only six retailers, one quarter is made up of oil and gas companies, another quarter of banks and insurance companies, and there are nine car manufacturers. The highest profit was made by the banks Fannie Mae with USD 83.9bn and Freddie Mac with USD 48.7bn. Apple and Samsung occupied position four and eight. Fortune Global 500, 2014, fortune.com/global500

11.6

Basis for negotiations: 11.6 million households in Germany quarrel with their neighbours. The level is high, but has remained steady. Of the issues that are most commonly brought before courts and legislators, loud stereo systems and TVs are the number one reason for conflict, while 19 percent of conflicts are caused by dirt and waste and 14 percent by noise from children. This is followed by pets, parties and noise caused by housework, each making up around 12 percent. Noise disturbances caused by sex lead to arguments in 5 percent of the cases. Most people settle the disputes between themselves and only 11 percent consult a lawyer or go to court. 12 percent relocate. Thomas Jüngling, welt.de, 8 October 2015

470

The Non-veg trend: while the consumption of meat is not rising anymore in western countries, it is increasing among the new middle class from Rio to Shanghai. From 2003 to 2012, it increased by 6.3 percent in Brazil, Russia, India, China and South Africa, which represent 40 percent of the global population. Between 2013 and 2022, it is expected to grow annually by another 2.5 percent. Rural dwellers in China ate 26.1 kg of meat on average in 2011, about 12.4 kg more than in 1990. In the same period, the average consumption of meat of urban dwellers rose by 19.1 to 48.9 kg. In 2050, emerging markets will cover only 46 percent of their calorie requirements with grain but 20 percent with meat, eggs and dairy products. By the year 2050, global meat production will have to increase from the current amount of 300 million tonnes to 470 million tonnes in order to meet this demand. Around the world new factory farms are emerging like the ones that have existed in industrialised countries since the 1950s. There is no saying how the animals could be fed. Since the production of meat requires enormous crops for animal feed, the production of soybeans will have to increase from its current worldwide amount of 260 million metric tons to an amount of 515 million metric tons, which is almost twice as much. Therefore, yields per hectare must increase or the amount of agricultural land must grow – or both. Fleischatlas 2014, Heinrich-Böll-Stiftung, BUND, Le Monde diplomatique

»Negotiation is not
the worst kind of trade.«

William Penn Adair 'Will' Rogers (1879-1935), American humourist



From Negotiating to Trading Equitably

The conference in Paris was not the last one where it was negotiated how to trade in order to stay capable of interacting and trading despite violent climatic changes. But what is actually behind the words ‘negotiation’ and ‘trade’? A look into the semantic rucksack

by Bernd Draser

Translated from German by: Jennifer Heger, Sarah Michels and Rebecca Noszvai.

There is no trade without negotiation. Human societies coordinate things with each other when it comes to joint action, even if it is for common trade. It is often said that the survival of human beings was and is only possible because of cooperation – not competition. How capable of interacting and trading a given society remains is a question of negotiation and an understanding of the necessity of trading. No matter what the outcome of the conference in Paris is, human negotiation will essentially dictate the nature of human trade in the coming decades: not only on a local, regional and state level, but also cross-nationally, multinationally and internationally. Even the smallest agreement can have a huge effect. So negotiating in order to trade is reason enough to give a serious thought to trade and negotiation. And the tool of thought is language. It is worth looking at what the words themselves are carrying within them because meaning is always present while talking. Just like a semantic rucksack along the lines of the economic rucksack.

Handiwork

In German, the word for trading (*handeln*) originally meant to work on an object with your hands. Just as the English word ‘to handle,’ that also bears the connection to the word ‘hand.’ The German Anglicism ‘handling’ of a problem is also more complex than one might think. Everything that hands can do is called handling and so in German there is a significant connection to trading. The Latin equivalent is *facere*. This whole level of meaning carries a pre-industrial connotation and echoes of handiwork still remain. This applies even more to the Greek verb *poiein*, which specifically means the creative work of craftsmen and artists – thus the word ‘poetry’.

This is not yet about industrially transforming resources into products, but the perspective is still relevant because it allows a look at a pre-industrial environment that plays a major role in some discourse. This is the romantic notion of sustainability that has its point because after all it was the romantics

who developed a distinct awareness of industrialization and its outcome.

A second meaning of the German *handeln* can be roughly translated to ‘to act,’ which closely resembles the Latin *agere* and the Greek *prattein*. The initial image is the shepherd driving his flock, urging it to move on. And this driving force, this restless advancement, is completely modern. It is not by accident that many words which are the markers of modern acceleration are rooted in this word *agere*: ‘agent,’ ‘agility’ as well as ‘action’ and ‘act’; ‘practice’ and ‘the practical’ are rooted in the Greek *prattein*. This restless movement forward, this breathless actionism is the aspect of action that characterizes us as modern humans. It is this kind of self-sustaining, permanently accelerating action that we suffer from, individually, culturally, and ecologically.

The third meaning is *handeln* in the sense of commerce, of buying and selling. The English word ‘trade’ derives from the Latin word *tradere*, but this is closer to the meaning of the first exam- ►

ple, since it calls to mind the action of passing on and handing over from hand to hand. The image of the merchant's handshake might come to mind. However, on a larger economic scale, the meaning derives from the Latin *negotari*; we know it from the English word 'to negotiate', in German *verhandeln*. This is a strange verb form: it looks passive, but is used in the active sense. Perhaps in this grammatical form there still lingers a memory of a time when commerce was not yet as driven and restless, as it already seemed in ancient times.

Negotiating human needs

A fourth meaning is important in our context, *handeln* in terms of a storyline, the plot of a film or a book. A book deals with or is about something, *handeln* refers to the content, the narration. What are conferences like the one in Paris about, then? Are they about saving the world? No, most certainly not. Or Mother Nature? No, she is not part of the negotiations either. Just like the riddle of the sphinx, which is solved by Oedipus, the negotiations are about us humans.

The objective of these negotiations is that we, and future generations, can lead an adequate life. Mankind is the criterion, and human needs were negotiated in Paris.

Again, it is a Greek myth that puts the disproportion of mankind and nature in a nutshell, because we have a Promethean problem. In the legend, it is not Zeus who created mankind, but a stubborn titan named Prometheus who formed humans out of soil and water. In his poem "Prometheus", Goethe paints this picture: "Here sit I, forming mortals / After my image; / A race resembling me, / To suffer, to weep, / To enjoy, to be glad". It is the epitome of *poiesis*, the process of making and producing, and the result is mankind. So far, our actions have not been promethean in a literal sense, i.e. not forward-looking and providing, but rather like Prometheus' clumsy brother, whom Hesiod calls, "Epimetheus, the thoughtless, who only learns from his own mistakes."

It is Epimetheus who accepts the gods' gift of Pandora's Box, container of the world's evils, these escape when the

Box is opened, and they have plagued humans ever since.

What counts is the result, not the intention

We still must take a closer look at ethics and action now as Hesiod calls that same Prometheus, who looks so conscientiously and prudently into the future, the one with the "crooked thoughts," the intriguer. Since Pierre Abaleard, an illustrious star of the philosophy world during the high Middle Ages in Paris, in the context of ethics, an action is put in relation to its intention, and by reference to this intention, moral valuations are made. Kant, too, states this in different variations of his categorical imperative: "Act only according to that maxim whereby you can, at the same time, will that it should become a universal law." That means: in a moral valuation of an action, the result should not count as much as the intention or the maxim.

That is the completely wrong approach for sustainable development because what counts considering plan- ►

etary limits, are not maxims, not convictions, not intentions, but only what actually happens. In environmental and climate politics, many of today's solutions are the problems of tomorrow. The bon mot "the road to hell is paved with good intentions" applies especially in this case. Friedrich Schmidt-Bleek gives a series of examples of such well-intended follies and missteps in his book *Green Lies*. If any quick prayer had been suitable for negotiations like those in Paris, then it would have been this one: If only God had granted the negotiators the ability to tell the difference between solutions and future problems!

But how do "acting" and "negotiating" relate to each other? Like "blooming" and "withering?" Or "respecting" and "disrespecting?" Maybe even like "eating" and "devouring?" There are many examples for "negotiating" in terms of "bartering away." And, as a matter of fact, we still sell many resources below price, or rather at no price, since ecological costs are not even factored into market prices; on the contrary: we pass on the costs to those who will follow and others. Back to Pandora's Box: Hesiod recounts that after all evils have escaped the box and only hope remains. Well, we still have it. "We'll always have Paris," as they say at the end of *Casablanca*. That should give us some hope. ■

Bernd Draser teaches philosophy at the Ecosign-Academy in Cologne, Germany. He often writes philosophical introductions to factory topics, most recently "Can a donkey be tragic?" in the factory magazine *Rebound*.



In Praise of Laziness (1751)

Laziness, now I'll sing you
A little song of praise,
Oh what a challenge it will be
To craft a song worthy of you
But I'll do my best
For after work comes the soundest rest.

The highest good! He who possesses you
Will lead a life without annoyance
But I—yawn—I—tire—
So please forgive the fact that
I can't sing your praise;
You, after all, hinder me in the process.

Gotthold Ephraim Lessing (*22 January 1729; † 15. February 1781), a major poet of the German Enlightenment

Source: Harper's Magazine, issue of 23 January 2012, 10:41 <http://harpers.org/blog/2012/01/lessing-in-praise-of-laziness/>

“The prerogative of interpreting the future now lies with the companies involved in climate protection”

...says Dirk Messner, who chairs the German Advisory Council on Global Change (WBGU) along with the climate scientist Hans Joachim Schellnhuber. Ralf Bindel interviewed Messner about the main institutional players for climate protection, as well as about migration and trade agreements.

Translated from the German by: Katrin Haßberg, Tamara Reiser, Lisa Rülcker, Kai Schuhmacher, Isabel Schuseil, Jessica Stahl, Rosemarie Prinsloo and Vanessa Tacken.

The Paris Climate Agreement is more than likely going down in history, independently of the success of its implementation. International climate negotiations will continue in the next few years. Whom do you see as the leading players with respect to climate change and decarbonisation besides the climate negotiators?

I would say that, besides the states, which have to ensure regulatory policies that result in a gradual decarbonisation of our economics on a national and international level, there are five relevant players who make a large contribution to the entire movement towards a climate-friendly society. First of all, there are the companies. What are companies doing and to what extent are they proactively trying to reduce emissions? There are also clubs of companies within the economy that are very ambitious. In Germany, for example, there is the 2° initiative launched by the German economy. It includes companies that are willing to make larger contributions in order to reduce their emissions. Companies are very important and the economy is also important. The second relevant

group of players is a subgroup of the economy, namely the financial companies and financial actors. A movement called 'divestment' has recently become internationally renowned. The idea behind it is that investors – regardless of whether they are small investors like you and me, or banks, or more recently the Allianz insurance group – divest themselves of assets and investments in companies that act in the fossil sector and divert these investments towards sustainable sectors like renewable energy.

Is divestment really that powerful? Originally it was a demand by environmentalists, students and NGOs.

This process is very dynamic. The divestment movement seemed to be the charming idea of a handful of idealists at first, but now even large companies such as the Allianz are moving in this direction. The KfW banking group (a Reconstruction Credit Institute), the World Bank and large financial institutions – they make up the second relevant group of players.

We are curious about the others.

The third big player is the cities. 60 to 65 percent of energy-related emissions originate from cities. It is therefore crucial how cities are continuing to develop – and there are cities that operate very ambitiously. The fourth group consists of non-governmental organizations that practise lobbying and public relations. And for me, the fifth player is science. As scientists, we also have an important function, because on the one hand we can analyse how the whole process is performing in general and whether the emission reductions that result from it are sufficient, and on the other hand we can provide advice on how to solve problems.

Is this also the sequence of the impact? Do companies come first and then divestment?

If I were to identify the entire impact contributed by the five participants, the companies and financial institutions would receive 50 percent. If they are moving in the same direction, this is of great significance. This is why I am mildly optimistic — over the last five years ►

a lot happened in this domain. If we look at new investments in the energy segment worldwide, we had a distribution of these investments amounting to 80 percent in fossil and nuclear energy and 20 percent in clean energy in 2003-2004. By now, clean energy makes up 50 percent. For three years in a row, from 2012 through 2014, we have noted that new investments worldwide in the energy sector have led to more clean energy than those that were based on fossil and nuclear energy. The new investments have already reached the tipping point towards decarbonisation, which is an incredible change. The other stakeholders: cities, NGOs and science play an important roles, but the fact that companies are leading in this domain is excellent. After all, at the end of the day, this is where it will be decided whether a major part of the emissions reduction can be realised.

The companies are actually the ones generating and using energy. The business world decides on the type and amount of energy and resources put into products and services.



In fact, cities are often found on the demand side. In cities, we consume energy in the form of heating or cooling. Companies are more on the supply side, new mobility and energy systems are being developed with changes in infrastructure and facilities.

We can see that divestment is occurring. Progress globally has been slight as companies like Allianz only comprise a few percent globally, but things are moving in the right direction. The apparently weaker stakeholders, NGOs and science, are the only ones who pushed for

change in the political domain in the past. Companies used to hold back or were even opposed to divestment, just like cities. Could that change in the future? Could stricter political frameworks for decarbonisation be demanded of government by these participants?

There are associations of companies, clubs and group who are demanding that politicians or climate negotiators implement ambitious goals like, for example, a global carbon tax. A step in this direction could mean a competitive disadvantage. Therefore, these companies are interested in making sure that

all are treated equally. The companies that are ambitiously adjusting their business models for quick emission reductions are interested in achieving suitable regulations. For example, the World Bank Group brought together 1,000 large companies that prompted the community of nations and the climate summit to discuss a global carbon tax. The two-degree initiative of the German economy supports the German government and advises them to pursue ambitious, rather than weak, climate goals.

This means, the number of companies that are moving in the right direction is growing.

I am a bit surprised that you are actually rating the companies that high, seeing them as relevant actors to reach the two-degree or even 1.5-degree target. In the past, most companies have refused to allow inspection and set frameworks – just look at all major trade associations. Climate protection used to be rather something only a few could boast of. Those who

have realized its importance and invest in efficiency measures certainly consider it as securing their future and competitiveness.

My observation is that perspectives have shifted in this regard. The energy sector is the most important area to focus on if one wants to talk about a decarbonized global economy, since 70 percent of emissions worldwide are caused by this sector. In many countries the situation is similar to ours: conventional fossil companies are under great pressure to adapt and we see worldwide that most of the new investments have been made in the renewable energy sector since 2012. It becomes apparent that the model for the future of the global energy system will be renewable and that fossil investments are on the retreat. A radical change has taken place. I would summarize it as following: the prerogative of interpreting the future now lies with the companies involved in climate protection. Those that are not on the right track yet, such as energy-intensive companies or German steel manufacturers, of course try to buy time from the government. However, there are very

few entrepreneurs who dare to publicly say that climate protection is a process they want to block. At best you will find actors – I am not naive – who try to buy more time for the remodelling process by lobbying. Yet, there is a great deal of consensus on the need to move towards a climate-friendly economy. This development is present not only in Europe but also worldwide.

Speaking of development: what is the situation in the countries where the current workbenches of the world are set, meaning in Asia? China and India are considered as emerging and/or developing countries with the nominally and potentially highest emissions due to their large population.

Viewed from the perspective of climate change policy, China and India are two different cases. It is quite true that a considerable part of industrial production takes place in China. There, emissions are not only nominally very high – after all, it has a population of 1.3 billion people – but the emissions per capita are also very high by now. A dec- ►

ade ago, they were still at 2.5 tons of CO₂ per capita and year. In Germany, they were at approximately 10 tons at this time. China has now caught up with Europe. Here we are reducing slightly. We are now at 8 tons per capita and want to further reduce. China is now at 8 tons, meaning the emissions have increased significantly. In India, the emissions per capita are still at approximately 2 tons – far from our level, lower by a factor of 4.

Is China doing too little to slow the increase?

Regarding China, it should be said that a large part of the energy supply is based on fossil fuels, but it is also apparent that new investments are being made in the renewable energy sector. China considers itself the fastest economy that could bring those technologies to the market because China has remarkable exchange reserves to finance them. When I am in China, people tell me with an amused smile that China can achieve this change, whereas in Europe, due to debt problems, Germany would be the only country to have this

capability. China regards itself as the innovator of decarbonisation.

What about India?

Only three to four years ago, discussions in India suggested that climate change is a problem that was and still is created by industrialised countries and therefore, has to be solved by them. India did not consider it as its duty. The country will continue to depend on traditional concepts of growth, employment and the fight against poverty. Climate change issues still play a subordinate role. Nevertheless, the discourse has changed in the last three years. There are positive signals that the country is developing large renewable energy programmes. This is very reasonable because India has great potential in the wind as well as solar energy sectors, and it has already started using them. Another aspect is that India has not blocked the ambitious Paris Agreement, which also urges developing and emerging countries to do their duty. That was the point I had been worried about. Everything could definitely change fast-

er, but at least China and India are moving in the right direction.

Is a kind of entrepreneurial awakening or a new consciousness for climate protection noticeable in China similar to that in Western countries?

If you look at industrialised nations, the discussion in the Chinese economy is similar to that in Germany. One group sees this as a new area of innovation, as a new wave with big eco-friendly investments in new infrastructures and business areas. Just like you hear it here, in energy efficiency companies, eco-businesses, or anywhere that deals with energy and resource efficiency. On the other hand, there are entrepreneurs working in traditional energy-intensive sectors. This includes the steel and cement industry as well as the automobile industry. Like here, they all try to buy time. However, there are three significant driving forces of climate orientation: The first is knowledge of the natural effects of climate change in China, such as diminishing water supplies, degrading soils and rising sea levels



along the whole eastern coast. China's vulnerability to climate change is a big issue. It is justifiable because the consequences will be more serious than, for example, in Europe. The second driving force is rather domestic. I guess we will see the fastest trend towards e-mobility in China since air pollution is incredibly high and the party is worried about its legitimization and power. People will no longer accept that their children cannot breathe freely. As a result, massive investments are being made in the expansion of new mobility infrastructures in the sector of electric mobility. The second driving force, therefore, is more health protection than climate protection, but the latter is also a force to be reckoned with.

And the third driving force comes from the strong foreign policy in China. I recently spoke with the deputy foreign minister. He said that China was a large country with great influence on the international stage and every global power needed a story to tell the world. Furthermore, he added that the American story was about democracy and freedom, and the Chinese story would be the combi-

nation of fighting against poverty and issues of resources and sustainability. He went on to say that China was still a developing country and it had few resources available and was vulnerable to environmental changes. He concluded that they were combining the fight against poverty with issues of resources, which was their soft power strategy. This depicts the current discussion in China.

According to the Coal Market Report by the International Energy Agency, a new coal-fired power plant went into operation every week in China in 2014, despite noticeable problems.

But every few days, an old power plant is shut down, as well. The power plants that are built today belong to the latest technical generation. I would prefer that they stopped building new ones. Nevertheless, the number of renewable energy sources has been increasing rapidly in China over the last four years. Coal is reduced accordingly because of this fast growth in renewable sources. The Chinese government had planned the expansion of energy mainly by coal combustion until 2030, but a significant



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part of energy development already comes from renewable sources. This is an important change that was introduced three years ago. Whether it happens fast enough to meet the two degree target remains to be seen. But China has planned to reach the peak of emissions from coal combustion by 2020 and reduce them afterwards. After 2030 all emissions should be reduced. Furthermore, China is setting up an emission trading system. Modernisation of the respective European system and a combination of both could give new impetus to the decarbonisation of the global economy and make a contribution to a level playing field in climate protection – ►

which would help European companies as well.

What you describe is the package that China brought to the United Nations Framework Convention on Climate Change in Paris as voluntary undertaking, isn't it?

Exactly. I am quite sure China will reach it faster, but the government supports goals they know they can definitely manage. This is also an important change. I have been working intensively in China for ten years and I am a member of the China Council for International Cooperation on Environment and Development. This is a board of ten Chinese and ten international experts that advise the Chinese government on issues of environment and economy. Talking about the peak of emissions was taboo several years ago. Nowadays, the country is pushing towards this direction. Therefore, Germany's two most important competitors concerning efficiency technologies and energy infrastructure in the field of renewable energy are China and the USA, because

these technologies are being pushed forward in the USA as well.

What we have to be aware of is the economic pressure that will be put on German companies by China. How are other developing countries dealing with climate protection? China is certainly the biggest and most important player during future climate negotiations, but there are other countries that have been raising their voices against them. They are fighting to ensure that their economic growth cannot be limited, that they have the same right to maximize their economic and social welfare at the expense of the climate. Is there a new development that makes it so that these countries could become more important players?

First of all, I can really understand the developing countries' arguments. The countries which have primarily caused this problem are industrialized and emerging countries. They have to show that it can be done in a different way and that growing welfare does not have to be paired with emissions. That

means in detail that we have caused the problem, we have available the necessary financial means and technology to solve the problem and it is our duty to show developing countries how it works in order for them to learn from us as soon as possible. These arguments seem to be valid – it complies with the 'polluter pays' principle. Second of all, the emissions of the 60 to 70 poorest countries in the world are so low that, from a global perspective, they are playing a minor role. Burkina Faso has per capita emissions of less than 0.2 tons per year. At the end of 2070, when the global economy must reach zero emissions, even those of Burkina Faso will still decrease. These countries will gradually adopt technologies that have been developed somewhere else but they are not the driving force of the process. It is more important to collaborate with the growing group of countries concerned with climate protection, that are not among the big threshold countries like Brazil, China and India but still dynamically growing like Vietnam, Indonesia and Peru.

Therefore, developing nations are just as important for climate protection...

... since there are two more fields in which they play a significant role. First and foremost concerning the protection of the forests because a large part of them is located in developing countries and one part of the solution is to stabilize global forests.

In this respect, the Congo plays an important role. It is a poor country that produces almost no emissions in the energy sector; however, forest conservation is of crucial importance. There is the Amazon basin in Latin America, in particular in Brazil; however, forest conservation also plays an important role in the neighbouring states. The same holds true for forests in Indonesia. Apart from forest conservation, the development of cities is also of importance. We are facing a doubling of the urban population from currently three billion people to approximately six billion people by 2050. 75 to 80 percent of the world's population will live in cities. Since a large part of urban development takes place in developing countries and

newly industrialised countries, the development should be as climate-proof as possible.

This will pose a problem as especially big cities in developing countries are located near the coast and are strongly affected by a rising sea level. This results in a high use of resources in order to save the coasts or to construct new buildings, which has, at the same time, a quite adverse effect on climate protection (see factory "Baden gehen" ("Going for a Swim")). Are there any essential similarities between the decarbonisation strategies in the cities of industrial countries and the cities of developing countries?

The starting situation is quite different. We, in Europe as well as in the USA, have to climate-proof our already existing cities, which are only growing slowly – most of them are even decreasing. It is about refurbishing buildings, renewal – and on this scale, we have to reduce our emissions. This gives rise to a series of disadvantages since there are many path dependencies in Europe. All

of our mobility systems have already been built. Gradually changing them to renewable energies requires a new system in which future electric vehicles are charged with renewable electricity. Previous gas stations would no longer be needed. It is difficult to change such big systems. In developing countries and newly industrialised countries, we have the advantage that a completely new infrastructure can be built. Facilities and infrastructure are being built for another three billion people. It would be a great opportunity if we succeeded in making them more climate-proof from the beginning on. If we do not succeed and climate-damaging infrastructure is built once again in the following 35 years, it will be almost impossible to correct this. The boost of urbanisation in the next three decades is of crucial importance. It may go totally wrong, but if it goes well, we may also experience a leapfrogging process.

There will be a massive worldwide movement of people in the following decades, not only because of the rising sea levels, but also



because of more serious conflicts and the increasing degradation of arable land. How can we reasonably deal with this at a global level? Is it possible to build new megacities where people can be offered a perspective for the future?

The most important card we still have is to fight for every tenth of a percent that we might be able to avoid in terms of global warming. Whether we have 3.5 degrees or only 1.6 or 1.9 degrees at the end of the day makes a huge difference with regard to the progression of sea levels, drought problems, degradation of arable land and extreme weather conditions that we will have to cope with in the future.

Climate change is also relevant for migration, as you just put it. In 2007, we made a comprehensive study of the matter for the WBGU (German Advisory Council on Global Change), examining a world with a four-degree rise in temperature, together with the corresponding data, and simulating adaptation strategies. We have ultimately given a new title to the study: "Climate Change as a Security Risk", since climate change

could become a safety problem in a world with a four-degree rise in temperature and the environmental changes might overstrain many societies. We referred to the issue of migration, to conflicts over increasingly scarce water resources and to degraded soils. The approach to be taken towards reducing global warming is therefore the first important factor under consideration. The second factor is to plan the construction of all new cities in a way that prepares them for a future rise in temperature somewhere between two and three degrees, i.e., the increase in temperature that seems most likely and which we do not wish to exceed. What rising sea levels and water availability mean for the cities of tomorrow needs to be factored in and estimated price-wise today, even if these cities will not be built until 2030 or 2040. It is very important to take wise adaptability measures.

In Paris, efforts have been made to reach a single international agreement that would impel nations to take a common approach to combatting global warming and limiting its

consequences; however, a number of international agreements concerning trade has been attempted and other matters are already in place. Due to the failure of the Doha Development Round of the World Trade Organization (WTO), these various agreements are all concluded more or less bilaterally or multilaterally, between individual states or communities of nations, e.g. between the US and Asia, the EU and Canada or the EU and African countries. Do you see the possibility of implementing more concrete sustainability or climate-protection measures as well as placing all action under a centralized protection chapter?

One major challenge is the integration of climate protection issues into large and important global economic institutions and frameworks. For the WTO, this would mean that in the areas where we currently do have relatively high tariffs – for example, for green products, energy-efficient technologies, renewable energy infrastructures and components – it would make a lot of sense to speed up liberalization so that ►

these technologies can spread more quickly. We also have to think about whether the WTO would be the right institution to sanction states that are noncompliant with climate-change regimes. In order to implement ambitious climate-protection measures in Europe, we could use tariffs as a disincentive for those who would neglect climate protection or disregard trade agreements. Such discussions are sure to arise, so it is imperative that we firmly establish climate protection within global economic regimes and institutions: in the International Monetary Fund and in regulations for international financial markets.

So far, agreements such as TTIP, CETA, TiSA and EPA have been made to reduce security standards in order to promote greater liberalization of the economy, especially through privatization in the public sector.

At this point, it makes a lot of sense to merge environmental standards with those for climate protection. In the context of TTIP, these are controversial subjects of much debate. Currently, Europe has different ideas in this area than the

US, but it is definitely an important topic. It is relevant to embed ecological and social standards as well as objectives in the policies and institutions of the global economy. As already discussed at the beginning, climate protection is not simply a matter of global environmental policy, but of worldwide economic change. This also applies, for instance, to the World Bank, which has supported economic growth processes powered by fossil fuels over a long period of time through generous loans. For the past five years, however, the World Bank has been moving under its new President Kim toward decarbonisation strategies. Regional development banks – also a part of Global Economic Governance structures, such as the Development Bank of Africa, Asia, Latin America and Europe – can also contribute to the decarbonisation of our economies by modifying lending conditions. It is not just the climate negotiators' responsibility to decide whether the Paris Agreement will succeed or not. Negotiators have introduced ambitious targets that must be implemented from now on by many other actors in the economy, in

society, politics and the sciences in order to create a world that can function without greenhouse gas emissions by 2070. ■

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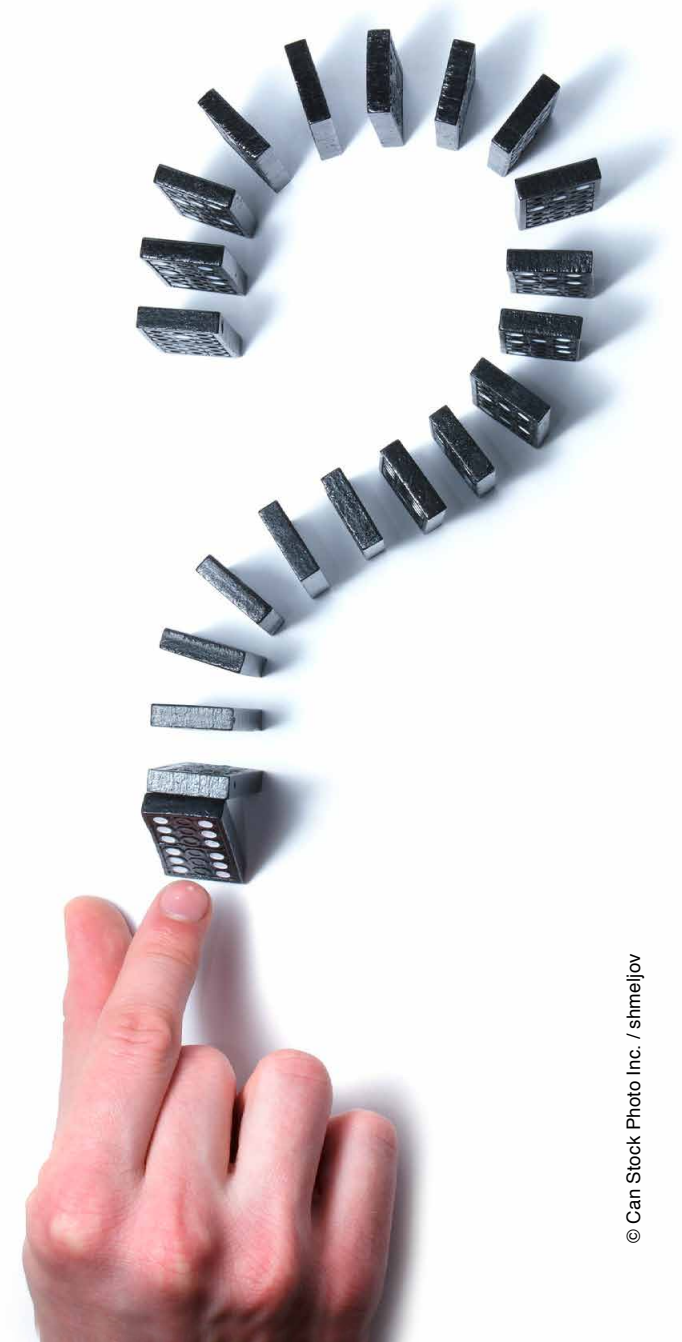
»It is human nature to
think wisely and act foolishly.«

Anatole France (François Anatole Thibault; * 16 April 1844 in Paris; † 12 October 1924 in Saint-Cyr-sur-Loire) was a French novelist. He won the Nobel Prize in Literature in 1921.

Modern Strategies

We actually know enough by now to build the bridge from knowledge to action in order to advance the conversion to a sustainable society by using less resources. Nudges, transformational products, disruptive methods and even info apps and self-measuring tools offer a wide range of strategies to foster change. Do they facilitate the transformation through playful approaches or are they nothing but nice gimmicks with rebound effects? Here are the pros and cons as well as several practical tips from Ilona Koglin.

Translated from the German by Svenja Thiel, Oradjeha Tanshi, Jennifer Vardaro, Melissa Kaiden, Vanessa Waigum, Nicole Wieden, Kerstin Rosero, Armin Deiri, Fenja Behrmann



Hopes are high: nice catchwords such as transformational products, disruptive technologies and Suffizienzinnovationen (a German concept of innovations that help us to consume less without feeling deprived) can easily evoke the good feeling of being proactive through the use of technological innovations. But does this lead to a truly sustainable society – or just to aimless agitating?

In light of climate change, the growing world population and the insufficient availability of resources, it is obvious that we need to cut down a bit. However, while studies have already shown that this ‘cut down’ would by no means be a regressive sacrifice of enjoyment, but could rather increase the quality of life if well applied, we are still struggling – as individuals and as society – to get from knowledge to action.

Would it not be wonderful if there were someone or something to change us from thinking to acting in our own best interest? Barack Obama, David Cameron and Angela Merkel each have established a team of advisors whose only task is the so-called nudging, i.e.

they think about how to nudge citizens towards more environmentally friendly and healthy behaviour, without additional laws and regulations.

Nudging citizens is already common practice in the US and the UK. There, printers and photocopiers use both sides of a page by default. Californian communities inform their citizens about their electricity consumption in comparison to their neighbours and economical households are rewarded with a smiley face, according to Bayerischer Rundfunk (Bavarian Broadcasting, BR)¹.

Some think that the smiley face is a good idea, while others think of it as paternalistic treatment of the populace and improper manipulation. Either way, it is working. The citizens of Spain, for example, do not have a choice in this matter. They are automatically registered as organ donors at birth, unless they do not wish to be, in which case they actively take their names off the list. They are being nudged. In Germany, the situation is reversed and the percentage

of people owning an organ-donor card is not even half as high as in Spain².

The Chinese government is one step ahead of the curve. In October 2015, China introduced the so-called Citizen Score, which evaluates individuals according to their social life, purchases and social media activities. With an exceptionally high score, it is easier to receive entry permits to Singapore or rare visas for journeys abroad. The behaviour of one’s friends also contributes to the final score. Until now, Chinese citizens have been allowed to choose whether they would like to be evaluated. By 2020, the score is supposed to be compulsory. High account balances and the purchase of certain products are great ways to enhance one’s reputation, whereas dissident remarks or video games result in a lower score. All data can be viewed by everyone. That way, China hopes to increase social pressure and to prevent people from breaking out of the system.

Martin Burckhardt created such a world in his novel *Score*, a world without violence, environmental pollution

¹ <http://bit.ly/1NjX8U5>

² <http://bit.ly/1PvZ00s>

and injustice. It is a world full of happiness, where everyone is granted an unconditional basic income. Beyond that, however, lies “the zone”.

Depending on the kind of nudging, one has to criticise the violation of privacy as well as the fact that the citizens may not decide whether or not they would like to be nudged in the right direction. If you mentally replace this politically enforced nudging by a self-imposed “actually convert good resolutions into reality”-programme, it can serve as a catalyst for our collective lack of action. This would be a catalyst that our ignorant mentality of keeping our possessions together apparently desperately needs.

Quite a few scientist, engineers, inventors, entrepreneurs, designers and programmers have already thought about this. A great variety of apps, tools, gadgets and smart products have recently emerged, with the aim of finally making us to actually take actions.

Realising the Need for Action

But let’s go back to the beginning: how, when and why do people actually change their behaviour? In the 1970s, a Professor of Psychology by the name of James O. Prochaska dealt with the subject of cancer prevention and developed a model on how and when people change their problematic behaviour. The result was the so-called transtheoretical model (TTM). Increasing awareness of the problem is one of the cognitive and affective processes that evoke a willingness to change. Or, simply put: people that recognise the negative effects of their actions can be the first step to make a difference in the future.

This is certainly a reason why self-tracking via apps, gadgets and wearables is not just a temporary fad, but a major trend. A growing number of people are tracking themselves and their behaviour, meeting in Quantified Self groups³ or finding like-minded individuals in respective communities – regardless of the concerns expressed by

³ <http://quantified-self.meetup.com/>

specialists in data protection about the collection of personal data everywhere. There are already health insurance companies and insurance policies that reward self-tracked good behaviour with bonuses and reductions in contribution fees.



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But self-tracking does not only focus on health and fitness. There is also a wide range of tools and applications available in the area of environmental protection. By using the online resource calculator of the Wuppertal Institute, you can determine how many resources are required for the production, use and disposal of all the things you need for your daily lifestyle, i.e. how heavy your personal ecological rucksack is. However, the Leafully app has specialised in the tracking of energy consumption and the GiveO2 app in mobility habits. In doing so, all of these apps reveal what this actually means for the environment.

Ecological self-tracking is also becoming more important for companies. The Effizienz-Agentur NRW (German efficiency agency) offers Eco-Cockpit, a tool to balance CO₂ which can be used to determine product-, process- and site-related emissions.

Use the scope for action

However, knowing that action is necessary does not mean that it takes place. As the 2013 Nature Awareness Study of

the German Federal Agency for Nature Conservation and the Federal Ministry for the Environment shows, 95 percent of the interviewees think that people should only use nature in such a way that future generations can also use it to the same extent. But when it comes to personal commitment, it seems that many people simply do not know how they can accomplish this.

At least apps could help the 46 million smartphone owners in Germany directly at the supermarket shelves to make the world more environmentally friendly by practising ethical consumption. Of course it helps if apps like Erntefrisch (freshly picked), Saisonkalender (seasonal calendar), iVeg or Zu gut für die Tonne (too good for the bin) get people to buy more local and plant-based foods and to throw less of it away. After all, according to the Rat für Nachhaltige Entwicklung, (German council for sustainable development), our diet is responsible for about 15 percent of the emissions of climate-damaging gases in Germany.

The same applies to applications like Codecheck. With these tools, you

can simply scan the barcode of a product and it will immediately show you not only how healthy it is, but partly also how environmentally friendly it is. Such apps are available for a wide variety of industries: for example, the Ecogator app evaluates in cooperation with the Eco Top Ten platform of the Institute for Applied Ecology electrical appliances via barcode scanning. The E-Schrott (electronic scrap) app shows where to dispose of old appliances.

The Siegel-Check (label check) app made by NABU provides information about the meaning of food labels and the ToxFox app by BUND reveals whether cosmetics contain any hormonally active chemicals. For purchasing fish in an ethically correct manner, there are even two apps – one by World Wildlife Fund and the other one by Greenpeace. This is also the case regarding fair trade clothing. Now, with so many apps, one would expect quite a large scope of action for Average Joe and Ordinary Jane in order to begin improving the world. ►

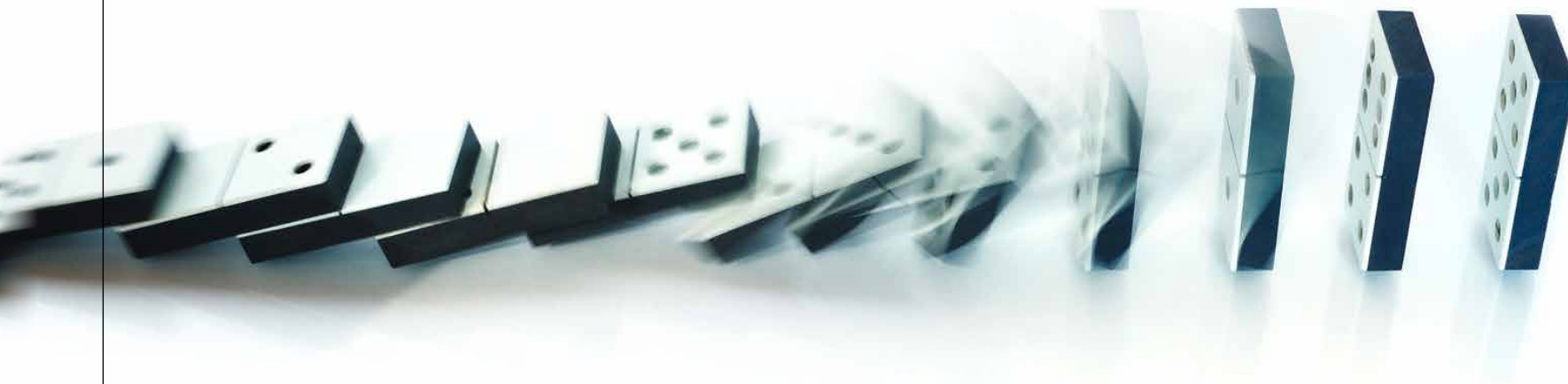
Force of Habit

However, as everyone knows, the path that starts with giving something a try and that ultimately leads to a permanent change in behaviour, is a long and often-times arduous one. To actually keep going, an enormous amount of motivation and stamina is required of all those who are not very keen on smart technologies which ease the strain (for example smart houses, electronic devices, cars or apps such as 'Green Power Battery Saver' that are fully automatic and supposed to guarantee energy efficiency without any further action).

There have already been studies on this in several fields and there are high hopes about the topic of gamification. This is the idea: design your path towards the objective of a permanent behavioural change as if it was an entertaining, exciting game – and instantly, a lot more people will stick to their goal. Because of the fact that this idea already works quite well in practice, game elements have now become firm components of almost any app. Green Plaza, for example, includes quiz games and the app 'A Glass of Water' motivates car drivers to drive as calmly and evenly as possible in order to prevent a digital

glass of water from slopping over – this is supposed to incidentally ensure environmentally friendly driving. The users of the app EcoChallenge and Ecotastic can take up weekly challenges which are intended to create fun, excitement and a change of routine.

At the same time, rewards (for example vouchers in Ecotastic) as well as being proud of personal progress, will enhance motivation to keep going. This is why these apps often do not only include a progress bar that shows the status of one's personal development (this bar can be uploaded to social media sites) but also the so-called concept of



'social gaming': The OroEco app, for example, offers, in addition to the function of calculating one's carbon footprint, the function of self-analysis as well as the progress bar and the possibility of entering a sort of competition in the online community: fellow users compete against each other to save the world, in a manner of speaking.

Disruptive technologies

But are all of these fancy, funny, helpful or even entertaining tools and apps sufficient?

There are apps which (in whatever manner) ease the necessary relinquishment and restriction. But for people who are already well-intentioned and motivated about environmental protection in first place, these apps are not actually smart, right?

Wouldn't it be more intelligent if we lived in a less resource-consuming way but just as comfortably? In any case, this suggestion is what motivates the advocates of so-called 'disruptive innovations' – meaning ideas and inventions that enable completely new behaviours

and attitudes. The economist and entrepreneur Günter Faltn even moves up a notch and demands what he calls Suffizienzinnovation ('sufficiency-oriented innovation') of the present generation of entrepreneurs. In this context, the risk researcher Ortwin Renn and the sociologist Harald Welzer refer to "transformative products" in the factory issue 'Trans-Form'⁴.

These products are new inventions which will allow people to forego certain material comforts without losing quality of life, thus significantly contributing to decarbonisation and dematerialisation.

A showcase project of this way of thinking certainly is the sharing economy. Even if carpool centres, car sharing and exchange platforms already existed before Web 2.0 was invented, exchanging, renting and sharing as an alternative model to common commercial practice was not successful until the Internet became social and mobile with the use of smartphones. And, of course, for the environment, it would be beneficial to follow this trend.

⁴ <http://bit.ly/1PmiVvK7>

In the sharing economy, more environmentally-friendly actions are not only practical but also hip: whether cutting costs by not riding one's own car via apps such as Mitfahrgelegenheit, BlaBlaCar or Flinc (German ridesharing services), ordering a bike at the next train station via Call A Bike instead of hailing a taxi, or exchanging unused items via apps like Kleiderkreisel or Stuffle (German online second hand marketplaces), in this new world of co-consumption, Western civilisation is wasting less material and energy and leaving less waste behind.

At least in theory. Unfortunately, in practice such sufficiency-based innovations often result in rebound effects: the resources and waste saved by the use of more energy-efficient products or altered behaviour ultimately enable more consumption for more participants (see also Factory Rebound⁵). "Though public transport and car sharing are trending in metropolitan areas and automobile fuel consumption is decreasing, total mobility consumption is increasing", according to Renn. Additionally, sharing services ►

⁵ <http://bit.ly/1Mxhkp6>

such as Uber and AirBnb do not take the pressure off the environment: the more affordable taxi and accommodation services allow more frequent use as well as repeated and longer journeys. That is not what sufficient means.

Rebound and social courage

Is it really possible to transform a social and economic system, which for several centuries has been programmed to believe that 'more and more' has the same meaning as 'better and better', just through a few smartphone apps and social games?

What does it really mean that a tenth of the total energy demand in Germany is currently spent on running exactly those apps and gadgets which should motivate us to save energy? What is the effect of buying a new smartphone approximately every two years, if its construction required not only much energy but also raw commodities and employees often working under degrading conditions?

This is to say nothing of all the smart fridges, washing machines and

cars which, due to the integrated IT, might become obsolescent ever more quickly in the future. Is it really worth it to create a 'smart shower'⁶ with sensors, CPU and a projector for visualizing digital information, the production and operation of which also requires resources - only to save a little water? A study project carried out by Folkwang University even won an economic award for its 'Shower Calendar'. But is it really award-worthy because it is the most innovative thing we can think of to solve our problems?

According to estimates by the United Nations Organisation (UNO), the gigantic amount of electronic waste alone will increase from around 49 million tonnes per year worldwide (2012) to more than 65 million tonnes (2017). "Some people are afraid the Internet is developing so fast that climate protection cannot keep up with it", states Professor Felix Ekardt, Director of the Research Unit Sustainability and Climate Policy, in an interview with weekly newspaper Die Zeit⁷.

6 <https://www.youtube.com/watch?v=AHezdVxbi7M>
7 <http://bit.ly/1WIwe2s>

No, new technologies alone are certainly not enough to create sustainable change - however disruptive they may be.

Instead, we must realise that abstaining does not necessarily indicate a regression. A system betting on egotism and denying interpersonal relationships and solidarity will never lead to a real sustainable lifestyle, and nothing in this world works separately but everything is interconnected. In a world that awards prizes for digital shower calendars, we will need a lot of courage. In fact, the new behavioural patterns that we need to shape a real sustainable society and economy are far beyond what is currently generally accepted or even conceivable.

However, this realisation has already been embedded into the communities relating to the sharing and gift economy. On the one hand, a certain attitude is becoming prevalent that radically scrutinises the necessity of material possessions. On the other hand, a system of mutual support and generosity has been established, where only those who share their possessions with oth-





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ers are rewarded with recognition and status in this economy. Hence, apps like Lifecycler and Do Me a Favour do not only target a different way of shopping, which means remaining in a very tight frame of ethical consumption. Instead, a practised generosity is the key principle: via these platforms, one can give away things, knowledge, time and space.

These people do not wait for something to be handed to them on a silver platter (e.g. an app) to lead them out of their comfort zone. They use The Age of Access and The Zero Marginal Cost Society, concepts developed by economist Jeremy Rifkin, and convert them into their own energy and economy revolution. The best example of this would probably be the 80 or so makers and climate activists who were tired of waiting for one climate summit after another. They met from August to September 2015 in a castle close to Paris to develop their own climate revolution in the run-up to the COP21 conference on climate change. The name of their own maker summit was POC21, because it was all about the 'proof of concept' of no

fewer than twelve open source products – from wind turbines to mini farms⁸.

Once again, this demonstrates that technology and innovation are not necessarily good or bad – they are what we make out of them. Waiting until someone or something nudges us is simply not enough – and it's no fun! ■

A tools overview can be found online at factory-magazin.de/links

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8 <http://bit.ly/1MxcPuU>

»What's the point of doing something good if nobody's watching?«

Nicole Mary Kidman, AC (born 20 June 1967 in Honolulu, Hawaii), American-Australian actress and film producer

May the Force Be with Us

Services from Google, Facebook and others are free of charge and efficient. However, they collect data about us on a large scale and use algorithms to determine our courses of action. Does this mean that we lose our autonomy and our freedom of action? The political aspect of the commercial interest for big data may be quite different.

By Andres Friedrichsmeier

Translated from the German by: Kathrin Ellwanger, Aneka Faiß, Eliot Reiniger, Mona Lang, Korbinian Feigl, Julia Hevesi, Ella Dering



LSD, hypnosis and deliberately induced concussions: CIA officials had indeed shredded their files in time, but when the US Senate wanted to investigate the activities of its intelligence organizations in 1975 towards the end of the Vietnam War, shocking evidence was still discovered. The secret project MKUltra, initiated in 1953, tested the possibilities of mind control. From today's perspective, this CIA programme sounds not only scary but also a little ridiculous. Speaking of mind control: do the intelligence organization NSA and companies like Facebook have more efficient tools nowadays than LSD and brain surgery? In 2014, Facebook shocked the public by admitting to conducting an emotional manipulation study on 689,003 users without their knowledge. The study showed that the users whose news feeds Facebook purposefully filtered of negative emotional content, which was accordingly withheld, consequentially posted more positive emotional content. The actual issue, however, is not the one-week experiment itself, but rather that Facebook filters and pre-sorts the news feeds of all its 1.5 billion users

with machine learning algorithms every single day. Plainly speaking, Facebook influences the emotions of about 20 per cent of the world's population. Barack Obama does not even govern a quarter of that many citizens. In contrast to Obama, Facebook's self-learning algorithms neither have to assert themselves against hostile senators nor do they have to publically document their decisions or even justify them. But they only come second in the Dvorsky's ranking of the top 10 world dominating algorithms, lagging far behind Google's 'PageRank'.

Yet, Google still wants more influence than it already has today with its 3.5 billion processed Internet searches per day. When it comes to searching online, we know that Google's algorithms do not only influence what we find but also, by means of autocomplete of the search text input, what we search. A prominent example is "Bettina Wulff + Escort". In the future, we will be enticed even more directly to use pre-designed courses of action. The 'Inbox' service, which is still being tested at the moment, is the best example of this. It allows Google to analyse one's full

email correspondence – to whom and to which email one has replied so far and in what way. From then on, for every newly received email Inbox provides an appropriately pre-formulated answer that we can send back with just one click or automatically add to our calendar. It is ideal for office jobs that are stressful and burdened with information overload. Thus, Google's algorithms efficiently suggest how we communicate with others or which appointments we attend or cancel. Assuming that users are pressed for time, this simply means that the algorithm has an influence on determining their behaviour – and who does not feel work-related stress caused by emails and appointments?

“Every user knows what they are getting into.”

Probably every Inbox user knows what they are getting into. It only becomes interesting when we get to the supra-individual level. Especially when we realise ►

that the individual ability to agree to the terms and conditions of such services has been degraded to an empty legal fiction. As early as in 2007, researchers estimated that it would take roughly 201 hours per year just to read the privacy agreements that require approval for the typical internet use. An average employee would have already spent 12 percent of their annual working time without having compared different providers or even renegotiated individual provisions.

Most of the people who play down the subject of big data by saying "that does not concern me personally" are right in a way. Not because their personal lives would be unaffected – for a start, big data helps supermarkets to systematically evaluate buyer behaviour and price sensitivities – but because the relevance of the topic is on the politico-social level and not with the individual consumer sovereignty.

A personal example: when I became a part of a project team, which was coordinated through a shared Google Calendar, I had the choice to complicate the work of the whole group out of personal privacy reasons or just click

the 'Agree' button on Google. A calendar is only useful if I enter all my appointments. I agree to every change of the terms and conditions by Google, otherwise I would be without a calendar. So far, so mediocre. After all, I'm using a handy service that is paid only indirectly through advertising fees – unlike my brother, who lives abstinent from data. Nevertheless, his birthday is marked in my Google calendar, I've given away his



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address via 'Maps' and all his e-mails to my Gmail account are also analysed. Furthermore, from the knowledge about me and other Google users who resemble my brother, Google deduces his shopping behaviour and price sensitivity reasonably accurately. As a result, many providers from whom my brother buys feel compelled to book advertisements on Google.

Although my brother never sees these advertisements – thanks to the ad blocker enabled in his browser – he pays constantly for them. The advertising costs are apportioned among the prices of consumer goods, whether in the supermarket, in the electronics store or when ordering pizza. My brother even pays for my use of Google Calendar. Does he, as a non-user, at least escape the 'filter bubble' effect? This means that algorithms from Facebook and Google primarily have the aim to optimise my user satisfaction, but they also show me things that I like anyway. For the conservatives among us, non-conservative news is filtered out; football fans can meet up inside a digital bubble of football friends, etc. This provides cause ►

for concern, but we should not make the mistake of judging the digital world according to standards which have not even been met outside of the digital world. Ultimately, any bowling club is a kind of 'filter bubble', and we falsely consider 'non-partisan' media companies such as the *Süddeutsche Zeitung*, *Welt* or *Focus*, which are dependent on the advertising market and controlled by a few private owners, to be pillars of freedom of speech. Therefore, we cannot say for sure whether digital services actually restrict the pluralistic exchange of views or broaden it, as was the case during the Arab Spring from 2010 until 2011.

“People are employed to deal with the ‘penis problem’.”

But does the sociopolitical influence of Google and others take a specific direction? Widely debated is the so-called nipple censorship, with an incredible amount of effort going into teaching computers how to differentiate between

male and female nipples so that the latter can be removed from Google's image search. This also applies to Facebook: millions of dollars are being invested in another unsolved issue, the 'penis problem.' The money is spent on this subject rather than on filtering out right-wing extremist hate campaigns. The kind of influence taken here becomes apparent with the following thought experiment: what would the digital world look like if Google and Facebook had their headquarters not in California but in conservative Kansas (would the phrase 'bloody hell' still be allowed?) or Guangzhou in southern China (would everyone publish their annual income on Facebook)? Nevertheless, how can we avoid overestimating this influence? By extrapolating such recent technical progress, as the contemporaries of the CIA experiment mentioned above did, who were absolutely certain that we would be living in colonies on the moon and Mars by 2015? The Facebook experiment quoted above shows that the manipulated users shared only three percent more positive messages.

The algorithms discussed here are undoubtedly more powerful in their main function – that is, to encourage us to spend more time on Facebook. Recently, this was brought about by a supposedly 83 percent reliable facial recognition which suggests tagging your friends even in photos where they were only photographed from behind. In terms of data privacy, it is at least alarming, but does it endanger our autonomy? The question is formulated incorrectly because single persons cannot be remotely controlled against their will via facial recognition. Until the 1970s the former was still completely imaginable for cinemagoers, as it was part of many Bond movies but as well as the main plot of the Doctor Mabuse movies from the 1920s and 1960s. Big data and its algorithms, however, only work on the basis of probabilities – whether it's in 2015 or in 50 years. Generally speaking, this is done with a gigantic amount of user profiles because customising big data for a single person would be too complex. The reason for this becomes apparent by trying one of the two available applications for desktop segments ►

with machine learning algorithms: they need a degree of human control to differentiate between analysis and redundant information.

For example, real people are needed to deal with the aforementioned 'penis problem.' Therefore, big data customised for single users asks them to cooperate voluntarily in verifying the correctness of the algorithm ("Please click if this suggestion was helpful"). But will it stay that way? Will the scenario of the movie 'Minority Report' become reality, where potential criminals can be punished before they even think about committing a crime? Today probation officers in the US already implemented



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this practice using algorithms to decide whether a released convict will reoffend or not. The police even evaluate whole neighbourhoods using this system. Or does big data only continue something that started under the heading 'computer search' in the 1970s? A social-theoretical answer: clearly the latter. Human behaviour, as well as human language, is inherently ambiguous and inexplicit. Every sense, every meaning depends on how the persons involved interpret the social context. They change their interpretation dynamically and their decisions are rarely consistent.

But only in a way which can be defined by good big-data-based probabilities. Therefore, big data can know more about us than we do, but it will always just be guessing.

“Only the low-cost culture has made the rapid internet development possible”.

To know more about us than we do is according to Google and others at least a question of survival. They'll want to survive on commissions instead of pop-ups if we use more and more devices without displays or at least with tiny displays in the future.

This means that my smartphone could know when I would like to call a taxi at the train station or order a pizza at a pizzeria within walking distance. Only in this case would I agree and if necessary cooperate with the algorithm, which could semi-automatically pick a vendor for me that is registered with Google – probably for a small fee. Will I lose the autonomy of my life through this? Not if I can gain some time for more important things than comparing prices of taxi services. But should we be giving the potential influences behind all that into the hands of only a few private companies? I do not know a single argument that would support that. USA Today recently calculated that 70 percent of the global Internet economy is controlled by only five US companies. ►



This calculation can be questioned; but not the fact that trade with the consumer-related big data has the tendency to make economic principles ineffective (big data for weather models is a completely different topic here). The reason for this is called the 'network effect', which means that services get more valuable the more people use them. Coordinating appointments via Google is only useful if my colleagues are using the same service. And if my friends are on Facebook, nobody could ever convince me to use the German social media platform 'Studi-VZ'. The network effect also explains why a European anti-Google would never be successful. Thanks to the network effect, the global monopoly models are more productive. It also represents the fact that only the low-cost culture, typical for big data business, has made the rapid Internet development of the last decades possible since most of the new services will become more valuable when people take part at an early stage.

This is questionable from a market economic perspective. Is the principle of 'goods for money' not the better

option? Shouldn't we get money in exchange for our data, which was already requested by Jaron Lanier, winner of the 2014 Peace Prize of the German Book Trade? However, our private data has no considerable cash value for Google, it only allows the offering of free services. The market value of private data lies within the single-digit cent range or below, which can be examined with the web calculator of the Financial Times for free.

Therefore, the cash flow of Google and others is not the result of data sales, but the fact that they encourage the development of digital user communities. The winners of the 2014 Nobel Prize in Economics have been able to verify that Google and others have some exclusive access of income, which they do not even exploit improperly. According to Rochet and Tirole, the monopolies of Google and Facebook have tended to lead to decreasing advertising rates. That's why Google's price policy is socially more acceptable than those of the manufacturers of medication for cancer, HIV or hepatitis, for example,

who shamelessly exploit the monopoly situation protected by patents.

One could say that the monopolies are developing almost unavoidably as a result of the network effect and thus are undermining the traditional concept of the system known as the market economy. ►



However, unlike Lanier and his enthusiastic publishers, we should not necessarily be appalled by this effect. After all, as Herman E. Daly and Joshua Farley have proven in their standard work Ecological Economics, it was not by accident that the market economy and the fossil fuel industry that is leading to climatic disaster, developed simultaneously. Why should a business model of free mass access be considered bad if it leads to the development of virtual communities – in contrast to the traditional model which does not consider social and ecological issues? Now, don't laugh, but could there be a grain of truth in Google's business slogan 'Don't be evil'? Anyway, from research on developing countries we know about the relationship between private enterprise models and social consequences: companies engaged in raw material extraction have no business interest in establishing social relations on site because they move on as soon as the raw materials have been depleted.

“... he remains the villain who must be deprived of his powers.”

A Ford factory is busier if its labourers can afford a Ford too. Thus, a whole era (approx. 1914 to 1973) has been named 'Fordism' after this business interest. 'Fordism' has subsequently become a sign for how the business interest of manufacturers in the consumption of goods has affected society, a phenomenon called the Wirtschaftswunder (economic miracle) in German and trente glorieuses (glorious thirty) in French. Some decades later, Google & Co may currently need manufacturers as advertising customers but they are also dependent on the success of virtual communities. Thus, it is becoming apparent that their business interests could be more compatible with the cultivation of social relations. The architecture of their headquarters is a clear sign of that. While banks and industrial companies demonstrate their claim to power with

phallus-like skyscrapers, Google & Co are constructing campuses. The universities, which are the centres of international exchange networks, serve as models. For more references, beyond Google & Co's much-discussed dislike of dividends, consult Jeremy Rifkin's book The Zero Marginal Cost Society. What will Google-ism look like if the business interest of Google & Co in flourishing virtual communities has effects on society? We don't know and we really should not 'know' yet but influence it ourselves. For one thing is obvious: there would be greater chances for an oil-independent world, for a system which is not based on resource consumption. Not that the chances would automatically be good but at least the result would lead less directly into climate catastrophe than before.

Does that mean everything is fine? I would like to remind you of Fritz Lang's initial film version of the character Dr. Mabuse from 1922, who aims at the creation of a better society free from "corruption and decay". But he gains too much power to manipulate others and thus remains the villain who must



be deprived of his powers. His rival, a lawyer, is only temporarily successful in doing so. In the long term, this could only be achieved through political means. A Google that doesn't want to be 'evil' (and is now called Alphabet) would not necessarily need to be broken up. It could be transformed into a foundation which is democratically co-determined by its users all over the world; into something similar to Mozilla, the famous developer of Firefox, an organisation with more powerful advisory committees than ICANN, which coordinates the assignation of names and IP addresses in the internet. Similarly, rather than selling his majority of shares to third parties for the benefit of colleges or aid programmes, the chairman of Facebook, Mark Zuckerberg, should instead transform his entire company into a democratic non-profit oriented entity. ■

Dr. Andres Friedrichsmeier is organisational sociologist and teaches at the university in Münster in the Department of Communication (IfK). Among other things, he is doing research on the use of management instruments in the public sector and works in the fields of counselling and further education. He had to start working with machine learning algorithms when one of his research projects generated far more data than could ever be processed by humans.





Links to sources

- Facebook study www.pnas.org/content/111/24/8788.full.pdf
- Number of facebook users- investor.fb.com/releasedetail.cfm?ReleaseID=940609)
- Top 10 algorithms io9.com/the-10-algorithms-that-dominate-our-world-1580110464
- Google Inbox googleresearch.blogspot.de/2015/11/computer-respond-to-this-email.html, <http://gmailblog.blogspot.de/2015/11/computer-respond-to-this-email.html>
- Number of Google users www.internetlivestats.com/google-search-statistics/
- Time required for reading privacy agreements https://kb.osu.edu/dspace/bitstream/handle/1811/72839/ISJLP_V4N3_543.pdf
- Nipple censorship through algorithms www.e-flux.com/journal/proxy-politics/
- Facebook facial recognition www.golem.de/news/gesichtserkennung-facebook-erkennt-perso-

nen-sogar-von-hinten-1506-114829.html

- Study on internet monopolies www.usatoday.com/story/money/markets/2015/11/05/online-amazon-concentration-internet/75182132/
- data price calculator www.ft.com/cms/s/2/927ca86e-d29b-11e2-88ed-00144feab7de.html#axzz2z2agBB6R
- Approach to rating typical market situations for Google and facebook www.rchss.sinica.edu.tw/cibs/pdf/RochetTirole3.pdf
- Text by Daly and Farley library. uniteddiversity.coop/Measuring_Progress_and_Eco_Footprinting/Ecological_Economics-Principles_and_Applications.pdf

Texts by Rifkin www.thezeromarginalcostsociety.com/

»The best time to plant a tree
was twenty years ago.
The second best time is now.«

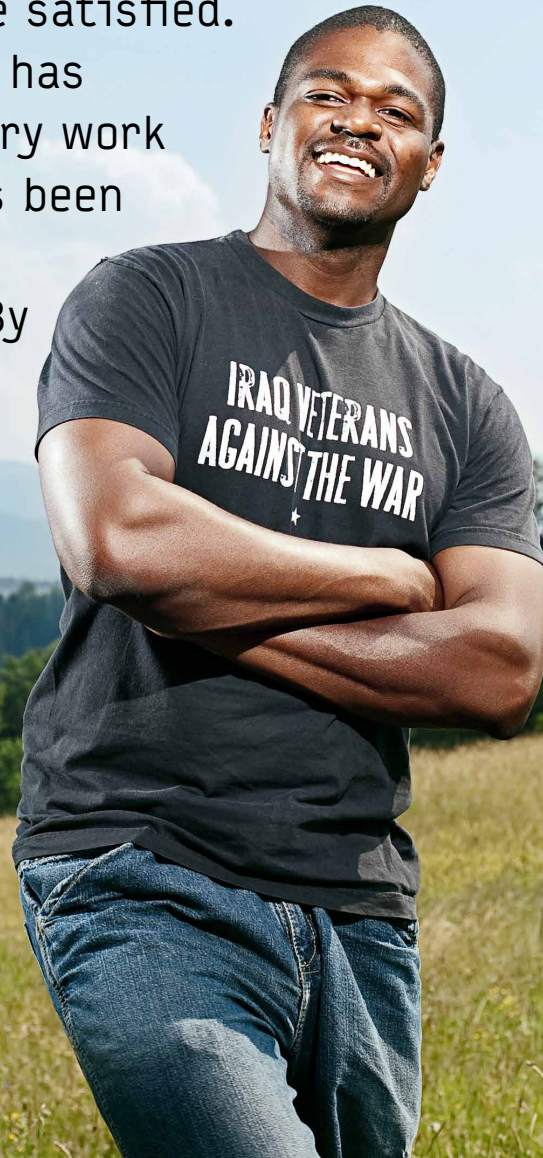
An old proverb

Nothing for Honour

Helping others is a basic need, because helpers live healthier lives and are more satisfied.

With the refugee crisis, helping has become a new trend. But voluntary work and getting involved have always been not only altruistic acts, but the basis and support of societies. By Ralf Bindel (text) and Anja Weber (photos)

Translated from the German by: Bianca Bauer, Marco Hoffmann, Katrin Haßberg



US soldier André Shepherd is an Iraq war deserter seeking asylum in Germany (taz Panter Award, Readers' Choice Prize 2010).



Petra Peterich has been accommodating juvenile offenders in her house for 30 years (taz Panter Award, Jury Prize 2010)

As a child, Hadja Kaba longed for her circumcision. Not until many years later did she realize what had been done to her. Today she is campaigning against this cruel tradition (taz Panter Award, readers' choice prize 2011)



When asked why he is doing voluntary work in my old hometown of Marl, my father Peter Bindel, doesn't hesitate to answer. "Because I have a streak of public spirit and because I like to help others", he answers. He volunteers in the Senior Citizens' Advisory Committee and before that he was a machinist at Hüls which is now called Evonik. He has been a pensioner for twenty years. He has always worked with children, teenagers and adults as an athletics trainer in his free time. He still carries out the exams for sports certificates and now he also works with the elderly. There are 22 volunteers in the town's Advisory Committee. They arrange that traffic lights do not change that often for senior citizens, they examine nursing homes, and talk to citizens about what could be done differently. My father is also an advisory member of the sports and school committee. He says that they look after the schools and their gyms where there is a lack of equipment managers and janitors and determine whether the equipment is still safe. Sometimes the volunteers attend seminars to improve their knowledge, and sometimes those seminars even last

for several days. My father explains his motivation by saying that it is an interesting circle of people. He also says that he has the advantage that nearly everyone knows him. It has always been that way. Cycling through Marl with my father, we are greeted almost constantly; and my father is waving to and also greeting people almost continuously. He says that you only meet grateful people when you do something for them.

We now turn to Bochum, where I currently live. I have a mania for justice, says Petra Weiler laughingly when she describes her motivation. With a graduate degree in education, she worked at the university first, then as a primary school teacher, and now she works in the learning support programmes of two different primary schools. She has been socially and politically involved for a long time and now she is also committed to helping refugees. In the self-governed Social Centre, she helps manage the KostNixLaden (ForFreeStore), a store in which everything from toys to shoes and electrical appliances is free. "People bring things they don't need any more to us and others can take what they need

and want," says Weiler. The KostNixLaden has existed since 2007 and it is open on the second and fourth Sunday of every month. Sometimes up to 60 people visit the store at the same time, and before and afterwards the goods have to be sorted, put away and cleared out. Weiler says that sometimes she reaches her limit and has to stop herself because she is exhausted. She also says that the contacts are very intensive and that one can learn a lot about other people and their lives and about life in general.

Weiler also helps in a refugee home in the town centre which is managed by an association called Plan B that manages several homes. Weiler says that there's a lack of nearly everything, for example of language courses, clothes, shoes, flats and bikes and she tries to help where she can, for example she accompanies them to the social security office or to the doctor, or she assists with legal questions or in the so-called 'bureaucratic jungle'.

"As a volunteer, I can afford the luxury of choosing and creating." Her thirteen-year-old daughter thinks it is good that she is so committed. "At the beginning she was sceptical, especially since I

Kazim Erdogan felt like a failure when he was in custody prior to deportation in the seventies. Nowadays he is helping men of Turkish origin to get rid of poor role models (taz Panter Award, Jury Prize 2011)



*Antje Krajci gave a home to an Afghan girl,
who was given medication in Erfurt. (taz Pan-
ter Award, Jury Prize 2012)*



Steffen Richter wants to set up a youth center in Pirna, where you won't meet neo-Nazis. (taz Panter Award, readers' choice prize 2012)



spend a lot of time with the refugees and my voluntary work," says Petra. "But now she doesn't mind cooking, playing and spending Christmas with refugees."

They are only two of approximately 23 million people in Germany doing voluntary work. Each of us has people in his or her direct environment who are just as committed and many of us are even volunteers themselves. 70 percent of all people older than 14 are said to do voluntary work. But it is not even clear what is covered by the term 'voluntary work'. It is difficult to distinguish it from civic engagement or volunteering. In general, it means altruistic behaviour, with an individual or a group doing work voluntarily and without payment. It does not matter whether the work takes place regularly, occasionally or even spontaneously, as for example at a disaster control organization. The term 'voluntary work programme' rather comprises work within the Voluntary Social Year programme (Freiwilliges Soziales Jahr, FSJ), the Voluntary Ecological Year programme (Freiwilliges Ökologisches Jahr, FÖJ) or the Federal Volunteers Service (Bundesfreiwilligendienst, BFD), the successor

programme of the community service after the compulsory military service had been abolished in 2011. Volunteers are elected to some positions (e.g. president of an association, councillor, commercial judge or lay assessor), and for some activities, they even receive an expense allowance.

Volunteers have always shaped societies and established many social institutions which are taken for granted today. In Ancient Greece, but also in Ancient Rome and later on in the Italian city-states, voluntary work was men's business. They generously took care of the community, while women and slaves did the productive work. In the Middle Ages, voluntary work was associated with honour and respectability. Aristocrats and later on wealthy bourgeois provided help for the poor, the old and the sick in order to increase their prestige and their honour. In the Modern Age, voluntary work for the community was even stipulated by the city rules and the local self-government. But when capitalist economic systems rose, the ideal of orientation towards public welfare started to fade. It was not free public work that

shaped the conception of man any longer, but economic activity. Nevertheless, voluntary helpers founded official and organized care systems for the poor which are regarded as the roots of modern social work. The 'Elberfeld System' thus became a model for the German Empire. The women's movement has also contributed to the diversity of voluntary activities. In Nazi Germany, people were forced to perform voluntary work to the benefit of the whole nation.

Nowadays, according to the results of the survey on volunteering or the commission of inquiry into civic engagement, one person out of three does voluntary work. Many sectors of public life would hardly exist if it weren't for volunteers. Besides childminding and care for the sick and the old, these sectors include youth work, nature conservation and environmental protection, Agenda 21 projects, animal protection, probation service, pastoral care, aid agencies, give-away shops, hospices, services and support for people with disabilities, sports, cultural and leisure facilities – and, of course, the voluntary fire brigades. The federal states and the municipalities



Welcome2Europe drives to those places in Greece where refugees without documents are stranded and informs them about their rights. (taz Panter Award, Jury Prize 2013)





Elizabeth Ngari and “Women in Exile” devote themselves to helping women who came to Germany as refugees. (taz Panter Award, Readers’ Choice Prize 2014).

support voluntary work by distributing tickets allowing free or cheaper entrance to museums and swimming pools. In addition, voluntary work has made a good impression in one's curriculum vitae so far since it displayed social skills, but in the meantime, many applicants prefer to conceal it as it does not fit into modern human resource policies any more.

There is much speculation about the reasons for this commitment, especially in times of this tremendous aid for refugees. Refugee initiatives all over the country report on people who are willing to help. The motive for this is, according to the media, "not so much genuine devotion as self-therapy", however researchers assume that charity is a basic human need. An American study in neuroscience indicated that even the thought of a donation stimulates the mesolimbic system of the brain, which controls the release of oxytocin. This hormone is also called the 'love hormone' and prompts nursing mothers to gladly take care of their children and couples to remain faithful. Moreover, voluntary commitment is the most prevalent form of prosocial behavior, but it is rarely

exclusively prosocial or altruistic. An awareness of values, self-experience, commitment, career, protection against feelings of guilt and the improvement of self-esteem may also be reasons for this voluntary commitment. Canadian psychologist Elizabeth Dunn believes that there are three criteria that are crucial for happiness through helping: autonomy, which means determining what needs to be done by oneself; competence, which means the feeling of achieving something and relatedness, which means feeling close to someone in need of help.

Sports sociologist Sebastian Braun stated in the German online newspaper Welt.de, that aid for refugees is not self-discovery kitsch but rather an

important trend. He says that the new volunteer is asking implicitly or explicitly for something, like interesting opportunities of learning, social relationships, and room for self-discovery and self-development. The reason for commitment is significant, even though not everyone who is involved in aiding refugees is expecting some consideration in return. Helping does make people happy and, according to a study conducted in the US in 1957, it also lengthens one's life, but this only applies to those who are really willing to help, a desire for diversion is apparently not enough. ■

Anja Weber is a photographer for taz and lives in Berlin.
Ralf Bindel is the editor of factory.

"Social, Political or Simply Human"

The photographs accompanying this article were taken within the scope of the 'taz Panter Preis', which the 'taz Panter Foundation' has been awarding annually since the year 2005. This prize rewarding civil courage is endowed with a total of 10,000 Euros, half of which is a readers' choice award, with the other half awarded by a jury. It is meant to be given to people who "engage in social, political or

simply human activities in order to help others, actively fight political and social grievances and often perform great deeds without seeking the spotlight," says the tender. Since 2013, the prize has also been awarded to groups and organizations. Our selected photographs taken by Anja Weber show the award winners of the past six years.



Digitalcourage e. V. (Digital Courage, registered association) cultivates the art of protesting against the excessive surveillance through the collectors of data – because it is a civic duty ('taz Panter Prize', Jury Prize 2014).



In the German city of Braunschweig, Lina Schönfeld offers free fistfighting lessons for refugees ('taz Panter Prize', Jury Prize 2015).



Owing to their emergency call system, the group 'Watch The Med Alarm Phone' is able to coordinate and supervise the rescue of boat refugees in the Mediterranean Sea. ('taz Panter Prize', Reader Prize 2015).

»Without the leisure class,
mankind would never have
emerged from barbarism.«

Bertrand Arthur William Russell, 3rd Earl Russell (18 May 1872 – 2 February 1970), British philosopher, mathematician and logician

A Further Step Towards Free Trade

The European Union wants to reduce trade restrictions by establishing free-trade agreements with a large number of countries. These agreements, however, will create new hurdles for sustainable management. Because on the one hand the companies are strengthened in pursuing their interests, but on the other hand binding regulations regarding sustainability and the preservation of human rights are missing. Yet it would be possible for trade policy to pave the way for ecologically, economically and socially equitable trade on an international level.

By Alessa Hartmann

Translated from the German by: Florian Burkel, Rieke Peters, Cathleen McNally, Anna Ganskih, Vanessa Tacken, Hanna Al-Jamie, Sarah Schlichter, Fenja Behrmann



Every day we are confronted with pictures and reports of human rights violations in companies, the non-compliance of labour standards, for example in the textile industry or in mining and environmental crimes such as poisoned rivers and illegal deforestation. And so far there are no effective countermeasures. Companies that purchase intermediate products or final products from suppliers with such trading practices rarely take the responsibility for this matter – the ones who are actually responsible are generally not legally prosecuted.

Even now when many companies have corporate social responsibility (CSR) strategies, this often happens only after public pressure is exercised by NGOs and the media.

The current trade policy in many countries is one of the reasons for this. This type of trade policy mainly targets market openings and maximization of profits, but hardly encompasses the protection and value of people and their livelihoods.

Many civil society organisations, therefore, are using an 'alternative trade mandate' to call for a fundamental

change in the way how negotiations are conducted and what is negotiated in trade agreements. First and foremost, they insist on the transparency of negotiations and that all negotiation papers will be made public. Moreover, agreements should be formulated in a way that allows for changes or cancellations after a review. Thus far, this is not actually possible.

However, the demand for transparency continues. This principle, for example, should also apply to the entire supply chain so that the involved companies can be held legally responsible. Until now, all well-meant initiatives, while they may sound good, are not legally binding for transnationally operating companies because they are voluntary. Democratic control is in fact restricted; while transnational companies receive a strong justiciable instrument through the Investor-to-State-Dispute Settlement (ISDS), victims of human rights violations and environmental offenses don't have this privileged access.

In order to be able to also hold these global players accountable at a national level, the introduction of an

appropriate corporate criminal law is necessary. The welfare of the people and the environment should certainly benefit when German parent companies can be held responsible for human rights violations by their subsidiaries.

These are all valuable and effective ideas to prevent and punish human rights violations and environmental offenses, but how does it currently work in practice? Does the European Commission, which is responsible for the trade policy in Europe, take these proposals seriously and does it incorporate them? ►



Sustainability Check of TTIP and CETA

In October 2015, the Guardian reported on the proposal of the European Commission for a sustainability chapter in the free trade agreement TTIP between the EU and the USA. It became apparent that with this text full of non-binding and unenforceable promises, the EU doesn't feel committed to impose essential environmental measures. It also fails to name the numerous threats TTIP poses to the environment or propose concrete measures to avert these threats. No passage in this chapter would change the fact that TTIP would enable corporate groups like Shell, BASF and Volkswagen to challenge regulations for environmental and climate protection before international arbitration courts. At the same time, there is no binding enforcement mechanism for environmental protection measures. If such a mechanism were to exist, it would be automatically weaker than the rights of the investors which are guaranteed to them by the ISDS.

In addition, the existing plans will lead to an increase in oil and gas extraction and export – and not to the promotion of renewable energy or energy efficiency. And that is although the aim was to reduce greenhouse gas emissions by 2020. So this proposal can only be called inadequate.

Let us have a look at the sustainability chapter in the trade agreement between Canada and the European Union, the so-called Comprehensive Economic and Trade Agreement (CETA), which is completed and accessible since September 2014. The fact that 'good work' and compliance with the ILO core labour standards are listed as goals in the CETA contract text is encouraging. Nonetheless, the chapter 'Trade and Work' lacks mechanisms to effectively implement the goal of good work. At the request of the EU, there are no penalties in the event of violation of these goals — conflicts are to be solved by consensus. Therefore, these goals are just non-binding appeals than.

The chapter about sustainable development remains non-binding, as well, and uses terms that do not actually

require anyone to take sustainable action. Dialogue, consultation, promotion, efforts, voluntary labels, examinations and reports, transparency and public participation — these are the keywords of those parts of the contract text that is about sustainability. The same applies to the chapter about trade and the environment, which is also vaguely formulated. Here are no consequences or enforceable obligations to environmental protection as well.

This approach of the current trade agreements of the EU can also be seen in the trade strategy that was published in October 2015. The rhetoric of their strategy is good and the European Commission seems to react to the great criticism that has been expressed by the public over the last few years, but the strategy is still superficial. The main objective of the European trade policy remains opening up the market in order to increase growth. The strategy also mentions sustainable development and compliance with human rights as goals but it doesn't explain how these goals can be achieved or enforced. In September 2015, the United Nations passed the ►

Sustainable Development Goals. However, it remains unclear how these are to be implemented concretely or at least made compatible with the new EU trade strategy.

UN Binding Treaty – The Toothless Tiger

Despite the ‘reality check’ of the current EU-trade policy, there is no need for honest trading participants and consumers to despair; there is in fact some movement going on in the international economic policy.

In 2011, the United Nations (UN) negotiated guiding principles concerning the economy and human rights. These guiding principles protect human rights by stipulating that companies must respect those rights and that governments have to ensure that legal and non-legal assistance is provided in the event of them violating these rights. All UN member states are obliged to implement these guiding principles nationally. Thus, the leadership of the Federal Foreign Office of Germany implemented the so-called National Action

Plan (NAP-Process) at the end of 2014. The catch: the guiding principles are on a voluntary basis, they are no legally-binding regulations.

Therefore, the UN is taking it one step further. In July of 2015 a meeting of a working group on transnational corporations and human rights was set up by Ecuador and South Africa and met to develop a binding treaty for a period of three years. This is exactly what civil society organisations all over the globe have been demanding for decades and now they have joined forces as a ‘treaty alliance’ and take part in the progress of the negotiations. If the conclusion of such a binding treaty is indeed successful, it would be a new chapter in the history of international politics and a milestone for the respect and implementation of human rights and environmental protection.

If the conclusion of such an agreement actually works out, it would mark the beginning of a new chapter of international politics, and would be a milestone for the implementation and compliance of human rights protection and environmental protection.

This makes it even more frustrating that this process is being ignored by nations with the most transnational corporations. At the very first meeting of the UN working group, the USA, Canada, Great Britain, Australia, and Germany were conspicuous in their absence. The EU delegation only partially joined in on the sessions and barely participated. It is then no wonder that the issues of the binding treaty are not included in CETA, TTIP, the various EPA with African countries or in the trading strategies of the EU. ►



But is there a silver lining on the horizon?

Can the big players ignore the increasing demand for a 'better trade policy' in the long term? The proposal of the EU commission regarding the regulation of conflict minerals was rejected this spring by the representatives of the European Parliament. Once again, the main point of criticism was the voluntariness. Only 4 percent of the 330 surveyed companies voluntarily publish whether the due diligence obligations of the supply chain for conflict minerals were fulfilled or not. The representatives of the European Parliament demand higher obligations instead of voluntariness, and are looking for another solution in a dialogue with corporations and the commission. This is a promising sign.

It gets even better. In October, around 250,000 people demonstrated against TTIP and CETA in Berlin and marched for a sustainable fair trade policy. It was probably the biggest demonstration in Germany in the last 10 years. This newly aroused interest in trade policy could further promote that such

agreements impose not only rights, but also enforceable obligations for corporations. Apparently, this is the only way to prevent human rights abuses and environmental offences in the long term. The contracts also include the stipulation that there will be no renegotiations

after the trade agreement has been signed, unlike the events after Paris. ■

Alessa Hartmann works as a consultant for international trade policy and investment policy at PowerShift e.V., and is coordinating the civil alliance TTIP – non-negotiable and the German NGO Forum in Environment and Development.

Further reading:

- Website of the Treaty Alliance:
<http://www.treatymovement.com/>
- Alternative trade mandate
<http://www.attac.de/atm>
- FDCL: "Corporate Responsibility without Obligations? Binding Rules for Corporations – Protection for People and the Environment." <https://www.fdccl.org/publication/2015-10-01-unternehmens-verantwortung-ohne-pflichten/#english>
- CorA-network for Corporate Accountability: „Fact Sheets UN Guiding Principles concretely“
<http://www.cora-netz.de/cora/steckbriefe/>
- Analysis of the chapter on TTIP sustainability:
<http://www.theguardian.com/business/2015/oct/23/ttip-eu-negotiators-appear-to-break-environmental-pledge-in-leaked-draft>
- CETA contract from 26 September 2014: http://trade.ec.europa.eu/doclib/docs/2014/september/tradoc_152806.pdf
- European Commission: „Trade4All – Towards a more responsible trade and investment policy“:
<http://ec.europa.eu/trade/policy/in-focus/new-trade-strategy/>



»Even if you're on the right track, you'll get run over if you just sit there.«

William Penn Adair 'Will' Rogers (born 4 November 1879 in Oologah, Oklahoma; died 15 August 1935 in Point Barrow, Alaska in a plane crash) American comedian, actor, author, and cowboy

Trading in Transition

Just as it does with many other economic sectors, digitization is revolutionizing trading. Online shopping, which is the ordering of goods via the internet, has gained an ever greater market share. The virtualization of sales also has real, problematic consequences; delivery traffic is increasing and specialist shops in city centres are having to close down. A countermovement is already stirring; 'slow retail' relies on decelerated trading just like the dietary alternative slow food. Convenience stores and corner shops are being rediscovered as social points of purchase in cities and villages.

By Manfred Ronzheimer

Translated from the German by: Sina Schlarb, Simone Vo, Jennifer Heger, Cathleen McNally, Hannah Al-Jamie



Delivering consumer goods to end customers is a billion-dollar business. According to the Federal Statistical Office of Germany, the 306,000 retail businesses in Germany with 3.3 million employees generated revenues of EUR 491bn in 2013. The share of stationary retail business with their own shops was, according to the surveys of the IFH Retail Institute in Cologne, almost 90 percent in the same year; as much as 10 percent were generated via online orders. Four years earlier, it was just 6 percent. At the end of the year 2020, IFH predicts the share of stationary trading will be only 78 percent. "As online shopping increases and the overall market stagnates, the retail industry as a whole is currently in a cutthroat competition," state the retail experts in Cologne.

An increasing number of consumers like to compare prices online and order electronically via smartphone or PC right away. In surveys conducted by IFH, 38 percent of the consumers said that due to increasing online purchases they are less likely to go to city centres and 27 percent are less likely to go to supermarkets at the edge of town. The

consequence: The number of shops decreases. Even in typical shopping streets more and more stores are empty. "Which prospects can be developed considering these trends?" asked the German Chancellor Angela Merkel concernedly at the German Retail Congress in Berlin in mid-November. "How can the supply of economically underdeveloped regions be guaranteed? How can the dilapidation of city centres be prevented?"

According to the head of government, answers to these questions will be provided by a Dialogplattform Einzelhandel (dialogue platform on retail trading) of the Federal Ministry of Economics, which will obviously be on the Internet. The dynamic change in trading also boosts logistics. "Delivery trucks are double parking, package stations and dispatch centres are springing up in the city and in the open countryside," that's how the German Institute for Urban Studies (DIFU) describes the situation which they are now examining in a new study. Urbanologists in Berlin doubt that only online trading is to blame. "It might strengthen the trend, but it is not

the cause of problems concerning stationary trading," says DIFU researcher Ricarda Pätzold. According to her, the industry is facing a profound structural change "comparable with the watershed as represented by the transition to self-service in shops in the 1960s".



Bundled Transport, Individual Needs

A closer look from an ecological perspective also reveals some surprising facts. In a study published in October by the German Clean Tech Institute (DCTI), it was found that, on average, online retail had a lower impact on climate than customers buying products at brick-and-mortar stores when measured in terms of carbon dioxide emissions generated during transport. The study, which was commissioned by mail order company Otto Group and logistics company Hermes, maintains that the positive result for online retail mainly comes from the consolidated transport of deliveries by parcel services, which always deliver to several customers per delivery trip. This bundled transport leads to a significantly better carbon footprint than a high number of customers individually driving to the city centre by car.

Hermes is already able to deliver shipments directly to a customer or his or her neighbour in 96 percent of cases. Through further shipping options, such

as customer-defined delivery times or parcel drop boxes, Hermes aims to increase the rate of first-time deliveries to 100 percent. “Essentially, this research shows that further reductions in CO2 emissions are only possible through avoiding unnecessary transportation,” says Hanjo Schneider, Member of the Otto Group Executive Board responsible for Services and Chairman of the Hermes Europe GmbH Supervisory Board. He states that this is the reason he and his colleagues keep working intensively on making their service offer even more efficient. According to DCTI Managing Director Philipp Wolff, the methodology, assumptions and calculations of the DCTI study 2015 were subjected to a critical review by the Öko-Institut Freiburg (institute for ecology at Freiburg). He is convinced that “the study will raise awareness of the issue and provide a stimulus for continual further research, monitoring and optimisation in this area.”

The trend towards ‘Retail 4.0’, named after the equivalent process ‘Industry 4.0’ in the world of production, keeps advancing – but it may already

reach its peak in a few years. If online retail extends to fresh food as well, electronic networking will soon hit a degree of saturation, says Alexander von Keyserlingk. He thinks that in five years, we will not have to worry about the tedious weekly shopping trips for milk, other beverages and detergent anymore – everything will somehow always be available at home, and automation will ensure steady delivery of these products. It is especially this automation that represents a big opportunity to the trade adviser and inventor of the term ‘slow retail’ – an opportunity to rediscover the customer and his or her individual needs. Von Keyserlingk anticipates that once the fascination with the new technology, with online and mobile shopping has worn off, many customers will develop a new yearning for haptic experiences, for exchange and inspiration. This, says von Keyserlingk, is where slow retail comes into play, the individualisation of the retail industry, with real instead of virtual customer retention. ►

Social Qualities

On his website slowretail.de and with presentations like the ones he did at the 'Slow Living Conference' in Berlin, trading expert Kayserlingk provides many examples of how there is a gradual and slow development of a new awareness, both for traders and customers, that generates a new type of stores and shops: "Shopping for enjoyment." Kayserlingk senses the emergence of "a new kind of specialty store". These are "stores that don't specialize in sectors and groups of goods like they did in earlier times, but are geared to their clearly defined target group." These traders need to know in which world their customers live, what they like, what kind of presentations they are attracted to and which services they expect. "These are new kinds of stores that separate themselves from being a store that simply stocks goods," says 'slow retailer' Kayserlingk. "In the cities, customers will expect the unexpected, quality of inspiration and clever services in the future."

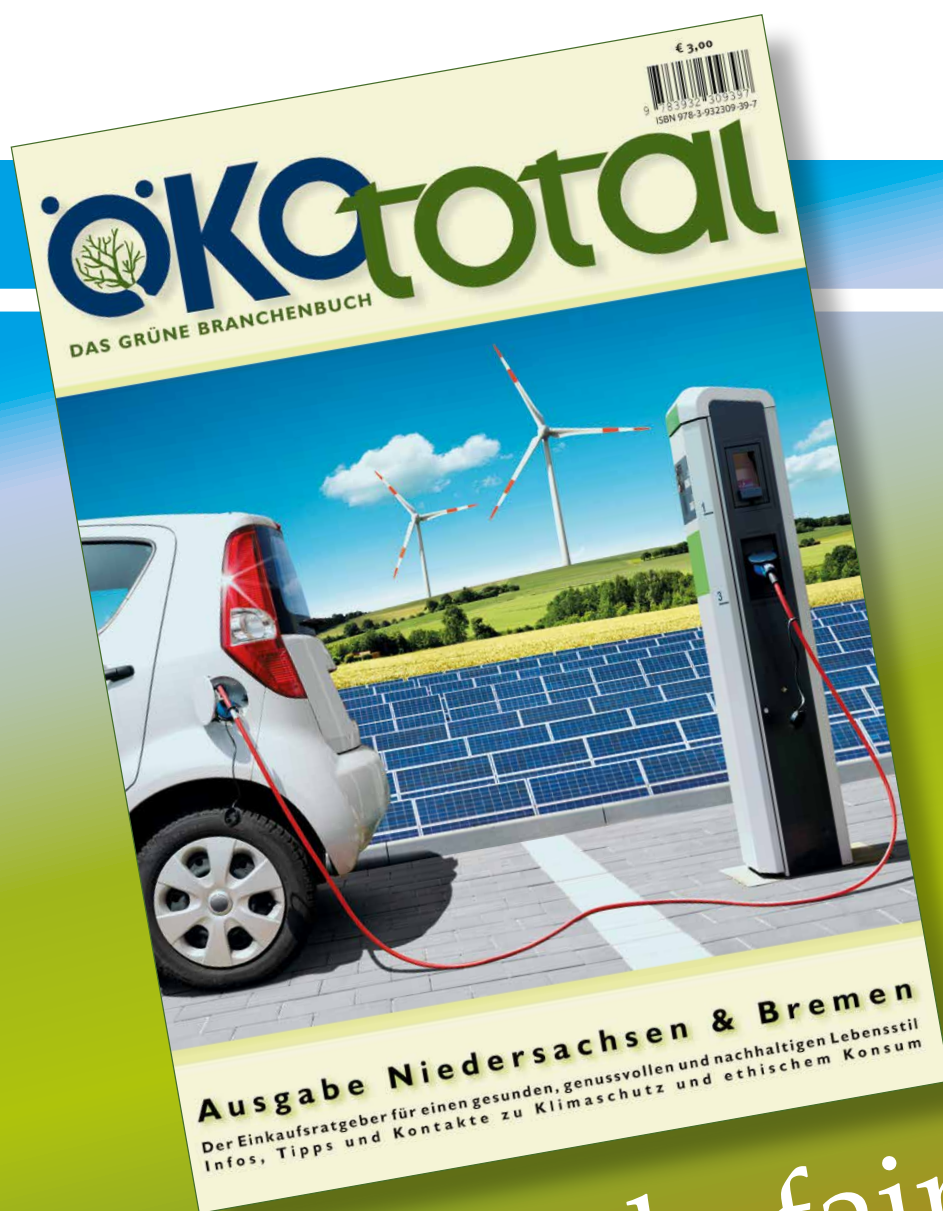
There are also hybrid forms emerging that combine online and stationary trading. Examples of this are the online shops of manufactum.de with their range of high quality household and craft products, the organic food provider genusshandwerker.de and the chocolate company fassbender-rausch.de. What they all have in common is that they offer detailed product information online, but the individual customer contact best takes place in stationary stores. Even the online wholesaler Amazon, which just opened its first store in Seattle, is planning to open a store in Berlin primarily for the sale of books.

Other qualities that are not directly related to the range of goods can put mini shops like 'late-shopping kiosks'

in the city and 'mom-and-pop stores' in the countryside back on the map for customers. These shops could be places for social contact and for direct conversations beyond the internet. Because there is a trend in local direct supply, there is a growing market for farm shops and their agricultural products. Some of them also offer a delivery service. In cities, even non-commercial factors occasionally are integrated in the trade balance of social areas. Hence, the police department of Berlin determined that the crime rate is lower in districts where shops are open late than in districts where they are not. ■

Manfred Ronzheimer is a science writer in Berlin and writes for numerous media, for example for the 'taz'.





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factory^y – the Magazine for Sustainable Economy

Although the word ‘factory’ is mostly associated with the manufacturing industry and industrial production, it can also refer to ‘factor Y’, the factor by which energy consumption needs to change so that future generations will find themselves living in similar conditions. Such an understanding of sustainability implies that all aspects of economic activity need to be addressed with sustainability in mind, including consumer practices as well as the manufacturing and services sectors.

factory^y highlights the role of businesses in sustainable development and aims to draw the drivers of the economy into the public debate. Such development entails resource efficient economic practices for both producers and consumers as well as educating and informing them about sustainability issues.

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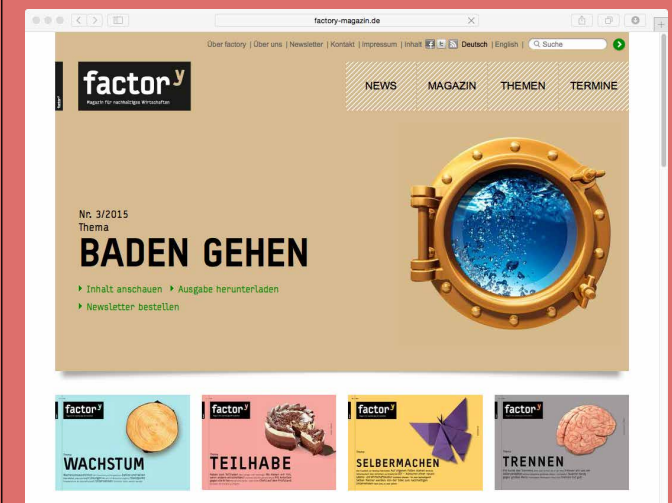
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