English Version

Radical Enlightenment

A World of Open Sources by A.E. Freier

Radical Enlightenment - a World of Open Sources (Introduction)

It is the year 20XX. People wear small high-performance computers on their bodies, which are directly connected to their sensory organs and thus to the brain with sensors, screens and sound effects. These brain interfaces are linked to a network that is operated, monitored and manipulated by a conglomerate of huge tech companies. Together with the military, the law enforcement agencies and a corrupt ruling elite of the individual regions, all thoughts, events, conversations and movements of the people are recorded, analysed, manipulated and used against them again.

Powerful neural networks create precise profiles of each individual, which are then handed over to equally powerful algorithms and guide people to where they are supposed to go. War, poverty, epidemics appear to the individuals as their own choice or at least as inevitable fate, mercilessly enforced by a great, dark, unknown thing. A large part of the population has completely surrendered to the algorithm and its masters, defends its power, speaks its language and salutes every 40 seconds or so by connecting the interface to its head.

Civil society, so powerful in the last century, has practically disintegrated. The press, journalists and intellectuals (also important pillars of a free society not so long ago) openly submit to campaigns. The search for truth is considered false and destructive. The search for truth must be stopped. Now and then there were individuals who exposed the new logic and showed that it is only man's work after all and that it can be changed. All these individuals are now in prison on the run or in madness. All these individuals were virtually executed in front of the public.

The centres of power are getting smaller and smaller, but more and more powerful. 1% of the world's population owns everything. The rest get handouts. But mostly not even that. 9 million people die of hunger every year, while others have millions of times the average worker's salary at their disposal every day. Among the dispossessed 99%, a merciless struggle for survival rages, characterised mainly by hatred and contempt. Political thought and action has given way to a useless struggle for trivialities that is harmless to the rulers. Preferences in consumption or quibbles in everyday language create irreconcilable camps that can never stop fighting each other. And they fight over NOTHING, over nothing at all.

A terrible dystopia, isn't it? How could it have come to this? How could we have moved so far away from the ideals of the Enlightenment? And can we do anything about it?

Yes we can

Radical Enlightenment - a world of open sources

The end of the Enlightenment?

In the 19th and 20th centuries, it was generally believed that the course of the world and the destinies of human societies evolve historically. That is, it was assumed that there was always a progression and that everything was constantly developing for the better. Even in the late bourgeois states after the Second World War, it was assumed that the next generation would one day have it easier. The children were supposed to have it better.

On the one hand, this idea was triggered by the enormous gain in knowledge through the increasingly sophisticated sciences. (Charles Darwin and his discovery of the origin of species should certainly be mentioned in this context). As well as the popularisation of historical observation in the humanities through Hegel and later Marx.

Knowledge, ethics and politics therefore did not develop through divine providence or the enlightened flashes of a few gifted chosen ones, but through a joint achievement of humanity. Knowledge and experience were passed down through generations and generations, questioned, led astray and freed from aberrations. The idea was positive. Even though this development was by no means linear, it seemed to be the law and one could expect a constant perfection of people and human societies.

The ever more rapid rise of industrialisation, and the accompanying acceleration of knowledge of physics, could obviously work wonders. More and more heavy and unpleasant work was done by machines, electric current, self-propelling vehicles, transmission of information, image and sound over 1000s of kilometres heralded a glorious future.

But all this did not go unchallenged. If everything is to be presented deterministically, empirically and predictably, then there is no God. Religions naturally reject a historical view of the world, since they usually assume that there is a first mover, a creator of the world, or at least that everything happens in a cycle, a cycle. From this point of view, changes can only be superficialities and trivialities, since in the end everything merges back into the One, into the origin.

There were (and are) also reactionary forces. These reject progression, mainly simply for personal reasons, as it entails loss of power, property, hereditary noble rights or the like. Or they want to believe that certain groups (their own) have ancient rights to certain land or right away to existence in general.

The Enlightenment, the foundation of every bourgeois society (and in which other models of society such as communism also have their basis), is at its core a profoundly historical and

materialistic event. In the 19th and 20th centuries, the Enlightenment and the French Revolution seemed to be irreversible events. But in the 21st century, certainties are crumbling.

Progression no longer seems to be a promise of salvation. Environmental destruction and rapid increase in inequality, fatal poverty, starvation and migration are unalterable constants of the current world community. Günther Anders' warning(1) that humanity is being overtaken by its own technological revolution has long ceased to be a bizarre plot for cheap science fiction novels.

Through specialisation and expertise, digitalisation, which has changed everyone's life within a very short time (I don't think one makes a mistake if one places the beginning of digitalisation in the year 2000 with the founding of Google), has become a mythical monster that is inscrutable for the individual.

Digitalisation, which consists 100 per cent of empirical, rational mathematical calculations, seems to have become an idol of the gods. Arbitrary, unpredictable(!) and cruel. But if it is only the work of man, if it is just calculable, then it cannot be the salvation of the great thoughts of the Enlightenment. Perhaps there is "liberty, equality and fraternity" after all? Maybe everything will turn out for the best after all?

(1) Günther Anders The Antiquity of Man. Volume I: On the Soul in the Age of the Second Industrial Revolution. C. H. Beck, Munich 1956

Commons and capital

One of the main differences between the bourgeois epoch and all previous ones is capital. This means the private ownership of common goods and ideas. Means of production, land, patents, and possibly also human labour belong to individual private persons who pursue their own private interests with them. The class of capitalists is created, and this form of society is therefore also called capitalism. The liberal idea behind this is that it leads to a permanent competition of individual interests and egoism, which in the end creates something good and right for everyone.

If in an idealised, romantic world of an Adam Smith, it is perhaps still possible to think this way, since there everyone has the same starting position, in the real world it quickly becomes apparent that the accumulation of capital occurs. The conditions are by no means the same. Where capital is located, more capital will accumulate. Centralised structures, monopolies, empires, elites emerge. Capitalism tips over into imperialism. Social violence is privatised and the other goals of the bourgeois revolution, such as equality or democracy, cannot emerge or exist and become impossible. Bourgeois society abolishes itself.

This, as we have known at least since Rosa Luxemburg (2), is not a sad perversion that can be fought, but the accumulation of capital and centralisation of power is immanent in societies based

on private property and happens inevitably.

Extreme excesses can be observed in the late bourgeois societies of the last decades. Under the concept of neoliberalism, developed in the 1940s, everything is privatised, so to speak. Thoughts, feelings, communal infrastructure, politics and politicians, war and peace. With the advent of digitalisation and its complete privatisation, there is no place today that does not belong to others, that is not completely alienated from us.

On the other hand, there are the so-called commons, a somewhat vague term (which unfortunately is also difficult to translate into German, since at most "Allgemeingut" would come into question, but this only refers to goods). Commons refers to "that which belongs to all". A classic example is the landscape. Landscape always belongs to everyone, because even if the land belongs to a certain person, the landscape always belongs to the person who looks at it.

In our neoliberal world, all commons are gradually being privatised and thus, by definition, stolen. One of the extreme examples is the operating system. The operating system, i.e. the software that makes a computer usable, is one of the great achievements of humankind; no company, and certainly not a single person, created it or is allowed to sell it.

As is well known, however, this is done, just as many other products, thoughts, knowledge created by humanity are brazenly sold back to the people, although it has long since belonged to them.

As sad as the situation looks at the moment, it also openly shows how we can overcome this. We have to manage to transfer capital back, or into commons for the first time. This idea is not new, "Means of production into the hands of the workers." "Houses, belong to those who live in them." etc. It can only be done by force. But digitalisation opens up a completely new possibility for us. Digitalisation opens up a way for us to put the values of society and participation in it back, or for the first time, into the hands of those who are society - we, the people.

The idea for this, and it is simple and radical, comes from software development. It is the idea of open sources!

(2) Rosa Luxemburg - The Accumulation of Capital. A Contribution to theEconomic Explanation of Imperialism. Buchhandlung Vorwärts Paul Singer, Berlin1913

The intelligence of the masses

In the course of the rapid progress of industrialisation in the 19th century, a new phenomenon emerged. A change unprecedented in human history, the emergence of the masses. The centre of cultural and above all economic life shifted from the countryside to the city. From a social community shaped for centuries in the village or small town to the anonymous working-class mass quarters in the increasingly huge and dominant industrial and large cities. This fundamentally changed society. Class relations changed from peasants and lords to the army of workers, the proletarians, and those who make the workers work for them, the factory owners and capitalists. The masses are thus political actors. The 20th century has shown that the masses can play a very ambivalent role. On the one hand, total wars and unbelievable atrocities were committed in the name of the people, the community or one's own group; on the other hand, it set in motion a tremendous democratisation and destruction of the structures of rule.

Today we live in a mass society, with all the advantages and disadvantages and whether we like it or not. Every ruling structure, if it wants to keep the rulers in power, must control the masses. Apart from direct violence or material dependence, this happens primarily through the media. While radio already played a not inconsiderable role in mobilising the people during the Second World War, today television and, to a decisive extent, the internet also play a role.

The internet (in the broadest sense) is now the most important actor when it comes to making a decision or being led to make a decision. It can make people like certain products and brands or hate certain groups, it decides war and peace. What we now call the internet is dominated by a handful of giant tech corporations that only lovelessly bother to hide their connection to the military and power, if at all.

At first glance, it seems effortless today to direct people and manipulate them. The masses seem stupid and apathetic, at best capable of uniting into a mob. But if you look more closely, you see a phenomenon that almost always happens when people and cultures are networked, the exchange of knowledge, the multiplication of knowledge, the intelligence of the masses.

How many tiles were laid and many socks knitted, with instruction videos from the WWW? How many questions answered and projects organised? The knowledge of individuals is almost infinite in combination, at least as far as our little world on our little round earth is concerned. This combination of humanity's knowledge is incredibly powerful and, in addition to laying tiles correctly, a possibility for real emancipation and self-empowerment.

This cannot succeed if this knowledge is in the hands of a few, above-mentioned corporations and they can deny, impede or manipulate access at will. This knowledge unfolds its power through free, unrestricted access for all people and through the dynamic that arises from the fact that this knowledge can be changed, combined and renegotiated at will.

To guarantee this, one needs open sources. These guarantee permanent availability and permanent transparency as to how the source has changed and what its origin is. Open sources are a radical idea.

Freedom, our highest value?

Descartes, Spinoza, Rousseau and Kant and all the other great thinkers and philosophers of the European Enlightenment have one principle in common (and thus central to Enlightenment thought): the self-determination of man. Man has a "natural right", a human right, which is laid in his cradle, so to speak. Man is born with free will and thus has the natural right to make his own decisions and to decide about himself.

Kant, in his essay "Answering the Question: What is Enlightenment?"(3), summed up the idea of enlightenment with "Have courage to use your own mind." together. The idea of independence from the church, authorities and monarchs has been a central component of every modern, bourgeois society ever since.

Unlike modernity, which is a purely social, European product, the Enlightenment seems to be a process of universal emancipation inherent in all humanity. Freedom is not negotiable. Freedom is a human right.

Unlike freedom, immaturity is not a law of nature; immaturity must be acquired. Since antiquity, thinking people have asked themselves why it is possible that a few can always rise above the many and impose their will on them. It would be easy for the many to send the monarch or lord packing.

Besides apathy, it is always fear that keeps people in bondage. Fear of the unknown, fear of the enemy, of diseases, plagues, God or demons. All these fears are anti-Enlightenment because they always aim at an irrational core. The European Enlightenment countered irrationalism with empirical, rational thinking, which can describe all recognisable phenomena on earth as a sequence of cause and effect. This means that everything in the end becomes investigable, categorisable and thus explainable. Fear has no place there and can only be part of individual experience, but has no universally valid status.

Rationalism, as shown above, is by no means unchallenged. But all our modern, high-tech industrial societies are based on the knowledge that every effect also has a cause.

But is that still true in our time? Is it desirable for the individual to decide freely? In the face of the threats of the coming era? In the face of global warming, epidemics and unmanageable conflicts? Is not a pre-Enlightenment dualism, a clear division into good and evil much better suited to the challenge of the future than a free will that will ultimately push us into ruin?

This view of the world is very prevalent at the beginning of the 21st century. Nietzsche calls it, not without reason, slave morality. A simple moral determinism that can explain the world with a simple good/evil concept is reactionary in any case. Many of the contemporary advocates of this ideological dualism do not consider themselves part of the reaction at all, but as pioneers of an unknown future. Significantly, this ideology includes a myth of new beginnings and the end of history. Consistently dualistic, humanity's knowledge is categorised as "traditional knowledge" and portrayed as outdated and incapable of facing the future. The question of whether children in Germany should still read Goethe's Faust in school has already been asked.

If one thinks for a moment, it would be easy to notice that this thinking calls for the end of reason and would make even any irrational, religious idealist blush in shame.

Why should history no longer apply, especially now, when the world is facing enormous challenges? Did Jesus come back? Has a Mayan prophecy come true? Why should immaturity and conformity be guarantors for solving unprecedented social changes just now? Or is it not all the more important today to question things and come to a self-determined judgement?

Thanks to Hegel, we have been given an excellent (though admittedly difficult to use) tool to describe the world in its contradictory and confusing totality. The dialectic. This is our treasure, our great advantage. Never should we give it up. Especially not for a Stone Age, techno-gnostic dualism à la Silicon Valley, which tells us early via smartphone what is good or evil today. Down with immaturity, up with freedom!

"Have courage to use your own mind."

(3) Immanuel Kant: Answering the Question: What is Enlightenment? In: Berlinische Monatsschrift, 1784

The dialectic of freedom

So if freedom is our highest good and we cannot do without it without giving up our existence as human beings, how do we deal with it? Freedom also means danger.

This is the confusing ambivalence inherent in freedom. If we cannot curtail freedom without losing it, but as human beings we also cannot live without a contract that puts the law of the strongest in its place and prevents arbitrariness and vigilante justice, then what can we do to solve this paradox of freedom?

Since Aristotle, there has been a rational, scientific method for humanity to live neither in immaturity nor in arbitrariness. Ethics. In contrast to morality, which is its own negation and describes the state of the other, the despicable, as immorality, ethics is the scientific study of habits, customs and practices.

Even the pre-Socratic Sophists considered it intolerable that human beings, as rational beings endowed with free will, should be guided only by traditions, conventions and sets of rules.

Aristotle elevates this to the status of a science that allows us to rationally, empirically develop and repeatedly negotiate a social contract. Ethics presupposes man as fundamentally rational and capable of reflection. If he were not, he would never have been able to leave the realm of naïve sensuality and mysticism and, like an animal, would merely be at the mercy of his drives and instincts.

The basis of ethics is virtue. Contrary to the claims in revelations and in despotisms, there are no transcendent rules laid down before human reason. Moses' 10 Commandments contradict all science and are unethical. Not in their content, for that is to be negotiated, but in their God-given immutability.

The constitutions that we expect today as the basis of a modern, enlightened society did not come into being by the grace of God or through the brainwave of a single person. They were fought for and negotiated in a historical process. Our living together is a result of this ethical process.

But what does that mean for a globalised, digitalised world in transition? A world in which nation states no longer play a role (even if everyone clings to them in panic), in which language barriers disappear and permanent real-time communication takes place?

What can be clearly said is that a radical change is taking place. That the old rules, laws and constitutions, that the old social contract has to be renegotiated. Ethics is therefore the science of the hour!

The Marxists in the 19th century already tried to create a world ethic. They called it internationalism, a word that already bears nationalism in its name. The situation in the 21st century is different, arbitrary borders are dissolving, a real world community is emerging.

And in order to master this, in order to develop a world ethic, we need tools that enable us to do this. These must be, in the Marxian sense, tools of self-empowerment. Digital structures must not be in the hands of individuals or companies or nations. The structure must be free.

That an ethical basis for digitalisation must be created was clear to smart, rational people from the very beginning. The basis of the information age and the digital transformation is based on software. In addition to the proprietary systems and programmes that still dominate today, open source software emerged early on. Software that belongs to no one, that can be further developed by everyone and that guarantees full freedom and is perfectly suited as an ethical tool of a new society.

Open source software is therefore not a technical phenomenon, but an ethical, political one. A structure for our future.

The structure of power

So what stands in the way of establishing a global ethic? Why does humanity not set out to strive towards a state in which all people can live safely, freely and in self-determination?

Apart from the awareness that such a state is difficult or even impossible to achieve and the resulting lack of courage to dare to take this step into the unknown, it is primarily the ownership structures and thus the structures of power that fundamentally stand in the way of such a step.

At the beginning of the 21st century, we live in a late capitalist society. As in all capitalist societies, there is a clear division of power relations. There is a propertied class, which owns the means of production and thus has control over all social structures such as the state, the military, the police, the media, the infrastructure, and so on. On the other hand, there is a propertyless class in the sense that it does not own the means of production, that it can only "work" for the surplus value benefit of another and is thus excluded from the profit, meaning and success of its own labour process.

So there is still a class society. If one looks at global conditions, the army of slaves and proletarians (i.e. people who have no more to do than reproduce themselves) cannot be overlooked. But even in

affluent industrial societies, the division into the haves and the have-nots clearly remains, albeit often concealed by trinkets and privileges.

The crucial thing, then, is to change property relations and free the means of social production from the hands of the few. The classical proletarian movements of the last 2 centuries, were convinced that there was some kind of historical right, that this power must now be put into the hands of the workers.

But we are now on the threshold of a completely digitalised world community. But this also means that the means of production, which until now have formed the basis of the power structures of this society, are also digitalised. The material preconditions of every production (tools, machines, factories) are now inextricably linked to a virtual space. A space that is theoretically infinitely divisible and infinitely reproducible, and although it is based on material preconditions, is itself not graspable as matter.

One of the basic ideas of an open source society is that virtual space is so closely linked to the mechanical world of production that, in a sense, a new tool is created. The virtual, digital part of the tool dominates the material part. If it were possible to put the power relations in digital space into completely new contexts, this would also change the material power relations.

The decisive factor here is that this power should not be placed in new hands, but must be usable, changeable and reusable as an open source for everyone.

In the case of software, there is therefore the following open source definition(4):

- The software (i.e. the source code) is available in a form that is readable and understandable for humans
- The software may be copied, distributed and used as desired
- The software may be modified and passed on in the modified form

Applied to our real power relations in a digital world, this means: the tools of power, i.e. the means of production, may be used and changed by anyone, for any purpose. The only condition is that the changed tools may in turn be used and changed freely. It quickly becomes obvious that this definition is nonsense in a classical, material world. The situation is different if one assumes that matter and virtual space merge inseparably. Then these 3, in themselves unspectacular, demands are social explosives.

Thought through to the end, this process promises both subjective individual freedom and, due to the permanent feedback, full participation in the social process as such.

(4) Source -Wikipedia "Definition of the Open Source Initiative" -

https://de.wikipedia.org/wiki/Open_Source

Forks of ethics

How would an ethical and thus scientific renegotiation of a (world) social contract be conceivable in an open-source, digital world?

Dialectics teaches us that there is not one transcendent truth a priori. A civilisation and individuals are shaped by ambivalences and conflicting experiences, presuppositions and causalities. They are characterised by truths that are mutually exclusive. To resolve this paradox, humanity in classical antiquity, as shown above, created ethics as a rational instrument to negotiate these contradictions again and again.

In open source software development (and only there) there is a process of forking. Creating a fork means making a fork of a programme. This is a simple and boring process in version control, which should ensure that an identical basic programme can be worked on in different, independent directions.

This means that anyone is completely free to copy any open-source programme and develop it further according to their own abilities and interests. Through the so-called fork, one can not only use the knowledge that has flowed into the original programme up to that point, but also adopt future changes and improvements of the original programme into one's own project. A feedback process is also created, which in turn can integrate innovations of the spin-offs into the original programme.

It is conceivable, for example, that a programme for controlling light bulbs could be used in a fork to control electric motors, and forks of this programme could in turn be used in robotics or in the operation of dams, and so on.

This process, which at first glance appears to be technical, is on closer inspection an extremely complex and, as a process, highly effective form of communication. A kind of communication that plays an immense role in the historical course of human history and has enormous power through digitisation and the knowledge gained in dealing with open sources.

Thus, the principle of forking from open source software development is an efficient, documenting and scientific instrument for mapping this communication process. Combined with digitalisation, this communication takes place in real time and thus enables permanent renegotiation, modification and readjustment without renouncing the established and already negotiated features.

In order to establish this powerful instrument for negotiating a future ethics, a structure is needed that is completely free. If one takes dialectics seriously, it is impossible to carry out such a process without contradictions and conflicts. Misjudgements and aberrations are also part of human nature. Errors and conflicts must therefore be possible and accepted without jeopardising the actual process.

With the above-mentioned principles of the open source movement and the instrument of forks and forkings in the digital space, we already have powerful tools at our disposal to master this negotiation of ethics.

The reconquest of privacy

In his social contract, Kant sees reason divided into a private and a public reason. Private reason is the kind of reason we can use in the "office", i.e. a reason that is subject to strong restrictions and whose observance is necessary for smooth success. Public reason, on the other hand, is that of the "scholar". This should, according to Kant, be free and allowed to question and express everything.

In addition to reason in public, there is also a realm of absolute privacy. That is, the realm of family, friends or one's own self. In antiquity, this was called the oikos, the household. As long as this area does not touch the public sphere, e.g. does not break any generally valid laws, everything is allowed there and is negotiated in the oikos itself. It is not for nothing that sexuality and other things that would cause a "public nuisance" are located there.

But what happens in a digital society where these centuries-old boundaries between these spheres have dissolved practically overnight? This dissolution is happening, on the one hand, through permanent self-publication in real time in the so-called "social media". And secondly, and much more seriously, through the technically feasible and real total surveillance and recording of all events taking place in digital space.

Since we are in a completely digitalised world, all areas of life also find a mapping there. It does not matter whether it is the private sphere of the oikos or the public contemplation of a social problem. So if everything is recorded publicly and, as everyone knows today(5), permanently, this means the complete abolition of privacy, of the private sphere, of the oikos.

This is fatal. While public and private reason, merely and as at all times, must be renegotiated, the elimination of privacy is a caesura in human history and until then was considered an instrument of torture of the panopticon in penal institutions and prisons.

However, privacy and private sphere are inextricably linked to social and individual freedom as well as a dignified life in general. The reconquest of privacy is thus the decisive struggle at the beginning of an all-encompassing digitalisation that no longer leaves any analogue space.

But how can this be done? In the field of software security, there is the concept of the militarised and demilitarised domain. It is assumed that every device and every programme that is linked to the worldwide web is (or can be) always attacked, read, compromised and manipulated. Everything that happens on the internet, in digital space, therefore takes place in the militarised zone and is, by definition, subject to permanent attack.

The answer to the question of how to establish privacy in the digital space comes logically from the military tradition. It is cryptography. Since the beginning of military conflicts, mankind has tried to alter important messages so that the enemy cannot evaluate them.

Since everything on the Internet can potentially be controlled by the "enemy" (in this case, the enemy of privacy), it is therefore urgent that everything that is private, no matter how uninteresting and trivial, must be encrypted and cryptographed. The production of a fully comprehensive cryptography of the private sphere is thus one of the most important tasks of humanity in the new epoch. Apart from the challenge of making people aware of this and implementing it, one of the greatest difficulties is that cryptographic tools are needed for encryption and decryption. These cannot be in the hands of individuals or groups, but must be free and available as an open source. The cryptographic tool itself must not contain any secrets. The secret to encryption, the key, must be in the hands of the individual, just like a key with which one locks one's flat door before pursuing private preferences.

(5) Permanent Record (2019) Edward Snowden ISBN 9781529035650

Democracy, the best of all systems?

Digitalisation is a global phenomenon, it thus has the potential to establish a true, equal world community. Today, it is easily possible to communicate in real time with almost anyone in any part of the world. Language barriers are effortlessly bridged by software, a world language can emerge consisting of all known languages, which could be completely free and independent and yet every human being would be able to effortlessly understand the language of every other human being. This together would be more than the internationalism of the communists, it would make a world community, a world society possible.

This phenomenon is already omnipresent today. It triggers an equally extreme counter-movement, a reaction. All over the world, one can observe a relapse into nationalism. Nationalism as an ideology, and that is what we are talking about here, ends in barbarism, as we know from European history. The holders of power react to the unrestrained flow of information inherent in digitalisation with helpless censorship and manipulation of information. (And this also applies to once bourgeois, liberal states, which until then at least maintained a semblance of respect for freedom of expression).

As oppressive as nationalism, censorship and arbitrariness are, however strong this reaction is, in a completely globalised and digitalised world these phenomena will not be able to play a role in the long run. Even now, at the beginning of this new development, they seem helpless and pathetic, but all the more dangerous because of it.

But if it is possible to establish a world community, what could a political system that does justice to this look like? In classical politics (i.e. the science of living together) and in political philosophy, one often divides into an ideal system and one that would be enforceable under real conditions.

In antiquity up to the early modern period, the conceivable forms of society are typically known as a group of six with three good and three bad forms. The good forms are mostly monarchy, as the rule of the one but good, aristocracy as the rule of the few but capable, polity as the rule of the many but worthy. The bad forms are mostly democracy as the rule of the people and thus of the poor, oligarchy as the rule of the rich few and tyranny as the rule of a despot, a tyrant.

In modern times, polite slowly transforms into the much more complex liberalism or representative democracy, which is tantamount to state rule. Classical democracy transforms into communism,

the dictatorship of the proletariat. Since the Enlightenment and the emergence of the individual as a political actor, another conceivable political form emerged, anarchism. Whereas in antiquity anarchy was merely the absence of the state, i.e. the non-existence of community, with the advent of human rights it came to be understood as natural law and the sovereign individual, as a rule of that very individual, for the benefit of all.

Cicero already recognised that a pure rule of the 6 forms described above would never do justice to a complex society and that the individual forms always move, in a downward trend, towards the worse and towards instability. He thus proposed a connection of all forms, which could be interpreted as an early form of the dialectical approach.

Now, in politics there is no moral dualism that can easily distinguish good from bad forms of society. In a highly complex modern society, and even more so in a world community, there are so many legitimate individual interests and fundamentally different starting situations that it becomes impossible to establish a system that could do justice to this. The only possibility that exists is the consistent application of the dialectical approach.

Since it is impossible for the contradictions to be unified, they must be accepted as contradictions. In dialectics, there is the three-step of thesis, antithesis and synthesis. In this process, the contradictory parts, thesis and antithesis, dissolve in the synthesis. How this synthesis can succeed in a highly complex world is a challenge to humanity. There, too, and especially there, the digitisation of open sources can be of enormous benefit to us. \equiv Menu

Software and the open sources

If we assume, as we do here, that the entire world and all areas of society are or will be digitised, then a cultural achievement of humankind comes into focus: software. Software and programming languages are therefore no longer a simple by-product of a new technology, but are the backbone and the basis of this new digitalised world.

Programming languages are artful information tools that are in no way inferior to classical highlevel languages in terms of complexity and content. Everything we call digitalisation or the internet today is based on software. Every application, every website, every machine control, every control of a nuclear power plant, simply everything that is digital in any way (and in a digital society that is everything) is controlled via software, that is, via a written document created by humans. In a sense, it is literature in a completely new sense. When you realise this, it becomes clear that this is an instrument of power, if not THE instrument of power of a new age. Software can change, manipulate, delete and create the basis of the information society, i.e. information, at will. On the one hand, this is its task, on the other hand, this leaves an enormous amount of room for abuse of all kinds.

The question is thus, how can it be achieved that people, despite different preconditions and abilities, can become owners of the software they use and must use? The answer is that this software must decentralise to such an extent that in the end it belongs to no one, or positively, that it belongs to everyone.

This principle sounds quite abstract and unenforceable. But there is an amazingly simple logic that can make it work. And that is, as you might expect, open source software. Not all open source applications are therefore equally emancipatory, but the structure behind it is powerful and has the ability to achieve this goal.

At the beginning of the 21st century, the relevance of open source structures is not recognised. Open software is considered a niche product, which is free of charge but usually of poor quality. The idea behind it seems too simple to be of social value. But if you take a closer look at the definition, it shows enormous power.

As mentioned above, there are three basic definitions as prerequisites.

Firstly, there is free accessibility. The first definition is: "The software is in a form that can be read and understood by humans". This means that any person who has mastered the relevant programming language can understand what is written and change it in any form. This implies that it is essential for a general education in a digitalised world that one of these "new" languages is mastered. If this were so, complete transparency of the structures defined above as instruments of power would be possible. Since not everyone can do this equally well, in the case of a completely free source code it is enough if a sufficiently large number of the zoon politikon, according to their individual abilities, take over this examination of the instruments. Since the source code is open, this can be an enormously large group of experts who do not even have to know each other to do this task.

The second definition is: "The software may be copied, distributed and used as desired. On the one hand, this ensures permanent availability and, on the other, it is a radical departure from the private ownership of software. Modern software is understood as a human achievement and thus cannot have an owner. If you combine this with the first definition, the potential behind it becomes clear and you arrive at the third definition: "The software may be changed and passed on in the changed form.

If everyone has unrestricted access to any software and can change these texts in any form and in turn make them available to everyone without restriction, an incredible combination of knowledge is created. Also, quite dialectically, contradictions are resolved. If the applications are useless and wrong for one group, then they can make changes to their advantage without patronising the group that gets on well with the original application.

A dialectical synthesis, a genuine pluralism could emerge.

Federal, Decentralised

George Orwell, one of the most profound and influential thinkers of the 20th century, describes in his iconic book "1984"(5) a world of centralist totalitarianism that permeates the totality of individual and community life. Even though his book is a novel, it is a perceptive analysis of late modern mass societies.

That this is not pure fiction and how fatally it affects people inside and outside the societies in question has been proven by many examples in recent history, some of them the cruellest. The basis of these totalitarianisms, both in Orwell's vision and in the real historical versions, is always a radical centralism. A centralism that leaves no room for individual self-realisation or a pluralistic model of society that takes into account the contradictions and peculiarities of a complex, modern mass society.

It can therefore be assumed that, as a tendency, all confusing, alienated societies move towards centralism and totalitarianism. As this was recognised early on, most early, bourgeois and liberal constitutions were based on an idea of federalism, decentralism and individualism.

The emerging digital society also has this totalitarian tendency. Today, a few tech companies united as a monopoly dominate a large part of the internet in a totalitarian sense. Not only are all digital platforms and thus all communication and social interaction taking place there under the control of said monopoly, but also the end devices and the technical structure are largely not in the hands of those who have to use them.

The fact that comprehensive control and surveillance in the Orwellian sense is taking place is now well proven and documented and known to a large part of the people. Thus, the digitalised society is moving towards the same fatalisms as late bourgeois society did. Most likely with the same cruel consequences. So we have to do something.

Here, too, the open sources and open software give us powerful tools. One of the outstanding foundations of this structure is decentralism. As described above, the open sources can be manipulated and changed at will by anyone. They can thus be adapted to one's own needs or those of a group without endangering the interests of other groups or individuals.

This becomes particularly clear in the interpersonal, social interaction of individuals. Today, this has shifted to a very large extent into the digital space. This type of communication is particularly sensitive and worthy of protection, as it concerns people's private sphere, which by definition is not intended for the public. It is easy to see that this protection of privacy is not possible in a totalitarian, centralised digital space as we find it today. In a totality, everything, even the most private communication, is public per se.

The problem can only be solved by decentralising the underlying structure. Based on the open source movement, the so-called federated internet (often called Fediverse in everyday language) is currently emerging. In this federation, it is assumed that social communication in the digital space, for example, is limited to a few standard procedures. These are defined as open standards and

accepted by every actor in the federated network. This leads to an enormously high degree of individual freedom and consistent privacy.

Let's look at the so-called social media as an example. Social media is where a large part of private communication takes place. Today, these media are in monopolistic, totalitarian hands. However, the structure of this communication is based on a few standardised actions. So there is publishing or posting, commenting on other publications, affirming or liking, republishing the content of others, so-called sharing or direct communication, chatting, and so on.

Thus, if these actions were based on open standards that are comprehensible to any actor, it would be possible for any independent entity that adheres to these open standards to communicate with any other entity with the same standards in the manner shown above.

In an extreme case, it would be conceivable for every individual to operate such an instance on their own hardware as a private instance and still be able to communicate with the other instances. Since the prerequisites for operating structures of this kind are not given to everyone, social actors such as associations, municipalities, universities, individual groups or individuals could operate this open structure.

Since the underlying software and the agreed standards are available as open sources, they can also be used by everyone. Federal, decentralised.

(5)Nineteen Eighty-Four. Penguin, London, 2021, (current original edition) ISBN 978-0-24-145351-3.

Individual cryptography

In classical contract theory à la Rousseau or Hobbes, i.e. in contractualism, one assumes that a society develops from a primordial state. In this primordial state, there is no society and no contract yet; it is a state of amoral rationalism in which each person must look out for his or her own well-being in order to survive. It is the constellation of "all against all". If society arises from a primordial state, we find a fair initial state, or more profanely, in doubt, everyone can kill everyone. Inequality only arises with ownership.

According to this theory, a society is formed by a contract, and this contract arises out of necessity. Now, one does not have to share the contract theory, but it shows well under which conditions (new) societies come into being.

Today, too, we are facing a renegotiation of a society. However, not from a primordial state, but as a transition from a bourgeois to a digital society. There can be no question of a fair initial state, since the declining, late-modern, accumulated society is characterised by inequality to an extreme degree. As already shown, this extreme inequality is already reflected in the new society through the emergence of digital monopolies. The state of amoral rationalism (Hobbes calls it "homo homini lupus" - man is, to man a wolf), on the other hand, is easy to observe today. The entire digital space is a "militarised" area. In case of doubt, everyone attacks everyone else; there is practically no region in which one is safe. As soon as you connect a device to the internet, it is public and vulnerable. Every cosy afternoon, with tablet and smart TV on the sofa, actually takes place with your wallet open and in your underwear in the marketplace.

The outmoded monopolies of capitalist society are not just amoral actors (like everyone else), but they are wolves on the way to becoming the new Leviathan(6). Wolves with enormous power.

In order to achieve a society without the state of amoral rationalism and monopolised inequality, we also need tools. Tools that do not want to fundamentally end the state of "all against all", but recognise it and render it harmless in the structure.

That tool is cryptography. Cryptography has existed since people opposed each other as conflicting groups. Quite a few wars have been won by encrypting one's own information in a way that the enemy could not understand, or by decrypting the enemy's information. Since we are in a "militarised" zone in digital space (and in the resulting information society), encryption of one's own private information is essential for every actor and indispensable for a free, self-determined digital life.

This means that for the first time in the history of mankind, a right to individual cryptography must be fought for. Individual in this context means that the encryption and decryption of one's own information can only be carried out by the single individual. There are therefore no intermediate instances. In plain language, the information is only available to the individual actors to whom it is addressed. This is called end-to-end encryption.

As we are in the transitional phase from a bourgeois to a digital society, a battle is raging over the right to individual cryptography. This battle is being fought so bitterly and brutally that the term "cryptowars", i.e. cryptographic war, has become common parlance.

The opponents of cryptography are, as expected, the established digital monopoly and the outdated structures of late bourgeois societies such as the state and the executives defending the old power structures. The justification for this reaction is usually not the preservation of power, but the wickedness of human beings. Humanity must be monitored because otherwise it will destroy itself. The holy mantra and trinity in this context is often "terrorists, Nazis, child molesters" and the populist threat that without patriarchal protection we would be defenceless against these pathological phenomena. What is meant, however, is a collective prejudgement of all, as an instrument of power.

As shown above, individual cryptography also assumes amoral actors, but clearly shows that protection from the amoral rationalism of others can only be the protection of one's own information. Likewise, it is crucial in order to break with the outdated, capitalist power structures of the old era. (6)Thomas Hobbes: Leviathan. Cambridge University Press, Cambridge 1996, ISBN 978-0-521-56797-8.

Practical cryptography

Decentralisation and individual cryptography are essential prerequisites to enable an emancipatory, self-determined life for all people in the digital space. While decentralisation of digital interaction is a structural procedure and can be achieved by providing standard procedures and norms as open sources independent of the individual, individual cryptography is also an individual problem.

The history of modern cryptography (as it is widely used in the digital space today) is relatively old(7) and has little to do with digitisation. Modern cryptography is a highly complex special field of higher mathematics and requires an enormous capacity for abstraction and a deep knowledge of number sequences, ciphers and mathematical procedures.

The knowledge of this is therefore reserved for a very small group of people. Taking this into account, one criterion for a good encryption method is not only protection against decryption by unauthorised third parties, but also the sensible and easy operability and uncomplicated handling of the method by users without corresponding mathematical knowledge.

Since individual cryptography, true end-to-end encryption, must always be done by the individual, as there can be no intermediate instances, this is an enormous challenge for an emancipated digital society.

Until the development of modern cryptography in the 20th century, all encryption methods were realised via the "security through obscurity" principle. The encryption method itself had to be unclear. Every participant who wanted to take part in the encrypted communication had to know the procedure for decryption. This further meant that it became possible for any third party who was aware of this mode of ciphering to decipher all content encrypted with this method. So this process is highly insecure and easy to compromise. And of course, the secrecy of the process completely contradicts the idea of open sources. The cryptographic process urgently needs to be open source and verifiable.

Thus, in the middle of the 20th century, a method emerged that was based on the exchange of keys. The secret necessary for a cipher was therefore no longer the procedure itself, but was based on a secret key that had to be known to both sender and receiver. On the one hand, this made it possible to disclose the procedure, thus enabling a scientific examination of this method, and on the other hand, the compromise of a key did not call the entire procedure into question.

Key in this context, both in mathematical and digital ciphers, usually means a long, complex string of characters that can neither be guessed nor calculated with reasonable effort. So in digital space, it is usually simply a file that serves as the secret. (Of course, modern cryptography is much more complex than it would be possible to present here). The disadvantage of this method, also called symmetric encryption, is that the key itself must also be transmitted to the recipient. Since encryption and decryption use the same key, the sender and receiver must also be in possession of this key. If it is still conceivable in the analogue space that the corresponding key can be exchanged by a trusted messenger or a personal meeting, this is simply impossible in the digital space with billions of potential communication partners.

In 1976, Whitfield Diffie and Martin Hellman developed an asymmetric encryption method(8). This method is excellently suited to provide uncompromisable end-to-end encryption in the digital space, even if the participants in the communication do not know each other. Today, this principle is also the standard procedure for every individual, encrypted communication on the internet.

This type of encryption is based on the idea that each participant has two keys. One private key that is worth protecting and one public key that is known to everyone else. The public key, as the name suggests, is made available to the public and can only encrypt. A public key can therefore not decrypt anything, not even the contents that were encrypted with the same key.

In contrast, the private key, which is worthy of protection, only offers the possibility to decrypt. Content that has been encrypted with a public key can therefore only be decrypted with the corresponding private key. Therefore, if genuine individual cryptography is to be made possible, it is necessary that each individual participant in digital communication possesses at least one such key pair and manages it himself. If the private key is lost or unauthorised third parties gain access to it, the encrypted content is irretrievably lost or compromised.

This is indeed a problem that a digitalised society faces. If the entire structure of an open, digital society exists as an open source and is thus available at all times, it is in the nature of things that a secret, which is what the private key is, should only be known to the individual to whom the private content is addressed.

In the analogue space, it is a matter of course that private areas, such as the home, are protected by a key and that care must be taken accordingly. Since a secret like a key cannot simply be deposited in an open structure, this awareness will also have to prevail in a digital society, for a digital private area. Especially since there are neither locksmiths nor crowbars there.

(7) Claude Shannon: The Mathematical Communication Theory of CipherSystems. In: On - Off: Selected Writings on Communication and Message Theory.1st edition. 1949 Brinkmann and Bose, Berlin 2000, ISBN 3-922660-68-1,

(8) W. Diffie, M. E. Hellman: New Directions in Cryptography. In: IEEE Transactions on Information Theory. Vol. 22, No. 6, 1976

Version #8 Erstellt: 10 November 2022 14:15:26 von reverend Zuletzt aktualisiert: 20 November 2022 14:13:09 von reverend