

THE COMMONS – PROSPERITY BY SHARING

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THE COMMONS –
PROSPERITY BY SHARING

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FOREWORD

“A society without the commons is like
the sky without the sun”

The subject – and the recognition of the hidden value of the commons – is increasingly finding its way into political commentary and public conversation. This report seeks to shed light on the many dimensions of the term and describe the many ways in which the commons can contribute to freedom, social equity and democratic renewal. By re-evaluating the commons we are able to turn the dominant economic model on its head. If we direct our energies to that which works and help people develop their potential, solutions can be found to innumerable problems confronting us. Relying on numerous examples, this report opens up a new perspective on questions for which each generation must find new answers. It not unusual for a change of perspective to unlock a whole storehouse of innovative ideas and solutions.

The Heinrich Böll Foundation has been exploring the subject of the commons for some years now. This report had its origins in work emanating from some of our Regional Offices abroad, though it blossomed through the fruitful cooperation that occurred when various thinkers came together in the interdisciplinary political salon, “Zeit für Allmende” (Time for the Commons).

I wish to thank all those who have contributed to this report, particularly Silke Helfrich, for the special dedication she has brought to the task.

I hope this report makes for inspiring reading.

Berlin, December 2009

Barbara Unmüßig
President of the Heinrich Böll Foundation

THE REPORT AND ITS SUBJECT MATTER

“Et quidem naturali iure communia sunt omnium haec: aer et aqua profluens et mare et per hoc litora maris.”

“And by virtue of a natural law, the following resources are in reality common to all: air, flowing water and the sea and, by the same token, the sea coast.”

JUSTINIAN (535 CE)

What older tradition had referred to as *res communes* – common assets – has been relegated to the background, if not entirely to oblivion, by the market and the state and their doctrines of market-*res privatae* and state-provided *res publicae*. Common pool resources such as air and water are today treated as *res nullius* “no-man’s resources” that no one owns or cares about. The disastrous consequences this has for all of us are manifest everywhere today.

Yet the *res communes* or “commons,” as they are known in English, are by no means “ownerless.” They belong to *all* of us, and cannot and may not be used for just any purpose, or for that matter be destroyed. But we must first claim our rights to them – all of us. It is the commons that feed us, enable us to communicate with each other, move around, that inspire us, bind us to places and – not least – serve as dump sites for our wastes.

To talk about our collective rights to the commons opens up a new dimension to the classic concept of property, which is first and foremost associated with the rights of the individual. It also raises a number of provocative questions:

- ◆ What would the consequences be if land were to be understood as a commons?
- ◆ How would public space change if it could no longer be arbitrarily privatised by advertisements, noise, vehicles or parking lots?
- ◆ What if knowledge and cultural assets could be used for free, as a matter of course, and their commercial use were the exception?
- ◆ What rules and institutions can help us best manage the commons?

The above questions have not been thoroughly explored in their theoretical dimensions, let alone in their practical, political, social and economic implications. Yet such questions must be answered if we are to recover the commons.

This report attempts to explore the potential of the commons if they are used wisely and sustainably. It delves into the reasons why so many commons are threatened and examines the rules that can help protect the commons from ruin. In the following pages we will share with the reader our thoughts and stories on these questions.

Not all commons are the same. Nor are the institutional arrangements that can help protect the commons from private appropriation or ruin. However, many design principles for successful commons have been identified by the commons theorist Elinor Ostrom, whose award of the 2009 Nobel Prize for Economics has drawn global attention to these issues. Similarly legal scholar Yochai Benkler has offered important theoretical approaches that he calls “commons-based peer production.”

We need to strengthen the commons as a distinct sphere of activity beyond the state and the market, in a manner that complements both. To achieve this, each of us is called upon to assume his/her responsibility as co-owner of “our common goods,” which will not only enlarge our freedoms but promote greater participation in the decisions that affect us. Unlike markets and state assistance programs and regulation, the commons need people’s commitment to function. The wealth that accrues as a result of the commons must be equitably redistributed across all the spheres in which we live.

The compilers of this report are grateful to several people for their critical support – extended in a spirit of solidarity – and their creative assistance. Our special thanks go to Christiane Grefe, Jill Scherneck, Oliver Willing, Jacques Paysan and Toni Schilling.

We also thank Madhulika Reddy for her translation work and David Bollier for the final editing of this text.

Silke Helfrich, Rainer Kuhlen, Wolfgang Sachs, Christian Siefkes

PREFACE

The commons constitute a well-guarded secret to our welfare. All of us encounter them everyday, in many places; all of us are constantly using them for business and commerce, in family life, politics and for leisure. Largely invisible, the commons are among those prerequisites taken for granted in social and economic life. Public attention is instead given to the commons' younger siblings: *private goods* as they that stream out of production halls into shopping centres and into the world of consumers, and *public goods* of the kind planned and inaugurated by mayors and national leaders around the world. Business likes to focus on private goods and the ups and downs of profitmaking and capital accumulation. This obsession leaves little space and energy to focus on the intrinsic needs of the commons. That apart, the only other area of interest is the ebb and flow in state coffers, from which public goods are paid for. The commons, by contrast, despite being indispensable, live a shadowy existence.

Industry needs the commons in order to produce.

All of us need them to live, and even survive.

Professor Elinor Ostrom's Nobel Prize for Economics commemorates the achievements of a lifetime of pioneering research into how best to manage the commons. Collaborating with several generations of students and researchers, "Lin" Ostrom has systematically studied natural resource commons around the world. Her goal has been to learn how people could manage collectively used resources in such a way that they could satisfy all their needs – as well as those of future generations. Like very few others, Ostrom has documented the innovation, communication and coordination that people can show in solving problems that directly affect their lives – that is, *if* they are given the freedom to do so.

Ostrom's Nobel Prize has focused fresh attention on the commons, and that is excellent news. It honours a lifetime of work. But there are other reasons why the commons is gaining new visibility: the economic crisis that has shaken the world.

The principle underlying a commons economy is:

Everyone has the right to participate as equal partners in managing a resource.

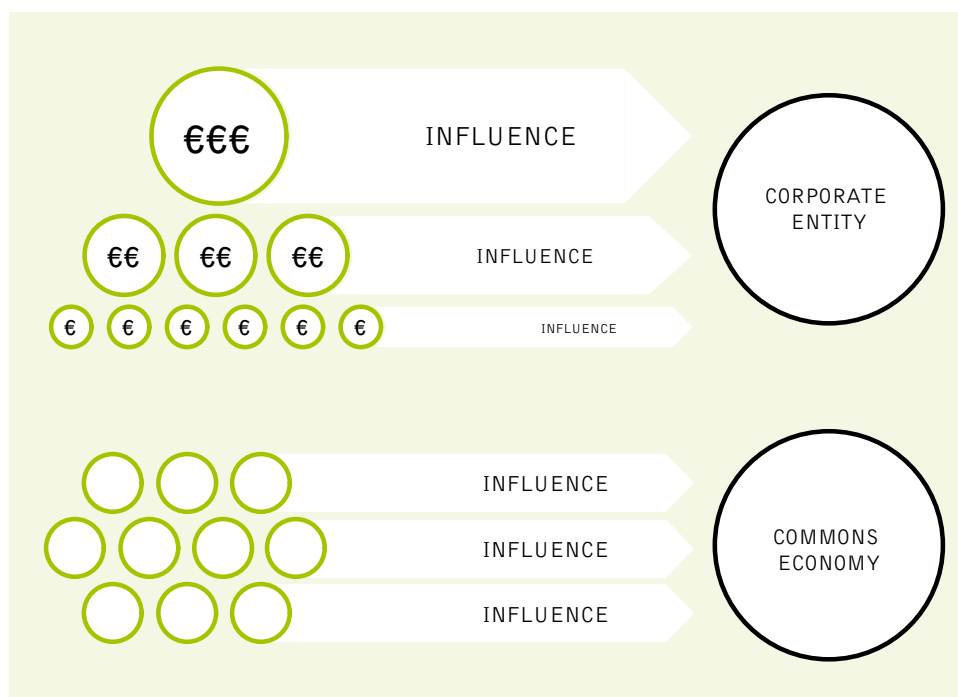
The principle underlying the corporate entity is:

Private money is the key. The more the money, the greater the influence.



Elinor Ostrom teaches political science at Indiana University in Bloomington. In 2009 she became the first woman to be awarded the Nobel Prize for Economics. Ostrom's areas of research include water supply, fishing, logging, use of pasture-lands and hunting grounds. Ostrom straddles the line between two disciplines, however: working at the interface between social science and economics, she contributes significantly to both disciplines. Her major work is her book *Governing the Commons: The Evolution of Institutions for Collective Action*.

PHOTO: OLIVIER MORIN, AFP/GETTY IMAGES



COMMONS, GEMEINGÜTER — WHAT IS THIS?

THE ALLEGORY OF THE DECK CHAIRS

“Carnival Cruise”
PHOTO: FLICKR-USER
JOSHBOUSEL



A ship is on a cruise sailing from port to port. Laid out on the upper deck are deck chairs; there are three times fewer chairs than passengers on board. During the first few days of the cruise, the deck chairs have a constant change of occupants. As soon as someone gets up, the chair is considered free; no one accepts the idea of placing handkerchiefs or other objects on chairs to indicate that they are being used. This is an expedient arrangement to allocate the limited number of deck chairs.

But once the ship sails out of a port and a large number of new passengers come on board, this arrangement breaks down. The newcomers who all know each other display a different kind of behaviour. They draw the chairs towards themselves and, from then on, lay exclusive and continuous claim to them. As a result, the majority of the other passengers cannot use any chairs at all. Scarcity reigns, fights are the order of the day, and most of the guests on board find themselves less comfortable than before.

From Heinrich Popitz, *Phänomene der Macht*, Tübingen 1986

The story serves as an allegory for the loss of the commons through the misuse of power. Initially the deck chairs are available. But they are limited in number and the demand for them great. Which is why the community of passengers initially follows the rule of free but short-term use. But as soon as one group decides to monopolise the chairs as its exclusive right, this slice of shared property is no longer recognised as such and a fight ensues. What we have here is one group making a power grab, and those who are excluded refuse to recognize any rule at the end of the day. In such a situation it makes no difference whether the deck chairs are appropriated by pushing one's way through, by paying money to the shipping company or by following the captain's orders. For the majority of the passengers, the cruise from now on is less pleasant and even uncomfortable.

This allegory can be applied to many areas: education, water, land, the atmosphere. Limiting deck chairs to just a few effectively puts an end to quality travel for all – while sharing generally enhances it. So, too, the quality of our lives suffers if the fair and sustainable right to use collective goods, which are not the property of anyone

in particular, are simply seized without discussion or negotiation. Such processes of negotiation may be complex and conflict-ridden, but so long as they seek collaboration, not confrontation, they can result in acceptable, long-term solutions.

COMMONS – WHAT ARE THEY?



Resources that can be collectively used constitute the inner structure of a functioning society. In this sense, shared resources constitute the infrastructure, inheritance, identity and culture of a community or nation.

In [nature](#). Each of us is dependent on water, forests, soil, fishing grounds, diversity of species, landscapes, air and the atmosphere, along with all the life processes associated therewith. By virtue of being born, each of us has a basic entitlement to the gifts of nature and to their preservation and equitable use, even if they are privately owned.

In the [social sphere](#). A satisfying social life is impossible without town squares, parks and public gardens, after-work time, Sundays and holidays and even car pools, Internet communities, and sport and leisure-time get-togethers. All of us need spaces and periods of time for spontaneous, informal gatherings. In many respects, the social commons can be maintained by the communities and citizens' initiatives themselves. However, they may also require public protection to assure safety and security. Innovative approaches beyond the market and the state are necessary for securing for one and all such complex services as health care, political participation and a stable financial system.

In the [cultural sphere](#). It is obvious that language, memory, customs and knowledge are indispensable for any human society. Just as we need the natural commons for survival, our creative activities require cultural commons – spaces for expressing ourselves, sharing, collaborating and reinventing things. For, ultimately, we must draw upon the stories, music and images of earlier generations in order to create new culture and pass along artistic styles, techniques and traditions. Similarly, we must ensure that the creative expression of our time will be freely accessible to future generations.

In the [digital sphere](#). The freer our access to digital objects and databases, the better our production and exchange. It is therefore important that the Internet, software code and the abundance of online texts, audios, images and films be available to others, without excessive restrictions under copyright law.

PUBLIC SQUARES RATHER THAN SHOPPING MALLS

Mexico City's centrally situated Plaza Hidalgo in Coyoacán is bursting with life. The cafes are full; both tourists and locals allow themselves to be seduced by the Plaza's colours, smells and sounds. Whoever chooses to can linger on a park in the shade of a tree to watch the hustle and bustle around. People love coming to the square, and they come over and over again.

Such *plazas* are part of the charm of many Latin American cities. They share their name with other *plazas*, neglected public spaces and overly large commercial shopping arcades. In El Salvador's capital, for instance, shopping malls are considered the "only safe promenades." Parents are reassured when they know their almost grown-up children are there and not in the run-down city centre. But here, in these "malls," the patrolling is done by private guards, not by the police. Here, people surrender the rights as citizens and become mere customers governed by private rules.

The centre of San Salvador still has squares to linger in, and the municipal authorities have drawn up a programme to beautify them with park benches and telephone booths. But once street vendors and hustlers go home public life very quickly comes to a halt. On balmy evenings, which descend upon San Salvador early, the public squares remain lifeless. People seldom linger there and seldom return.

When asked, in a representative survey conducted by the social science research institute FLACSO in 2006, whether San Salvador's city centre had historical-cultural value for them, 90% responded "Yes." Around 80% even affirmed: "Yes, it's our square. It belongs to the people of San Salvador." But when asked whether they visited the city centre to meet each other there, around 60% replied: "Rarely, and that too only if I happen to be going that way." A good 70% would like to pull down old buildings and replace them with car parking lots. San Salvador's city centre clearly reflects the residents' lost ties with their city. These ties have been worn thin by social neglect, the interests of private developers and the budget constraints faced by local administrations.

"They have paved Paradise and turned it into a parking lot"

JONI MITCHELL 1970

A lifeless square,
Berlin-Mitte

PHOTO: FLICKR-USER TEORUIZ



But for that matter, even in the heart of Berlin, parks are being closed and roads shifted to provide space for the expansion of "places of consumption." Who consulted the city's inhabitants, to whom the roads and squares belong?

Urban commons are places full of life in which the distinctive tastes and talents of local residents can shine. For example, the famous neighbourhoods of Berlin have been shaped by the residents themselves, who naturally stand ready to defend their neighbourhoods against outside interference. This is just one way in which the rediscovery of public space as a commons can make cities livable again.

THE HISTORY OF THE IDEA OF THE COMMONS

Depending upon how you define it, the idea of the commons goes back thousands of years. But since the idea has been largely erased from public awareness, it is instructive to recollect that approximately 1,500 years ago, the Codex Justinianum of the Late Roman Period recognized a far more complex set of ownership forms than we recognize today. The Codex makes distinctions among four types of ownership:

- ◆ Res nullius were those resources that had no owners and could therefore be freely used by anyone.
- ◆ Res privatae described resources that constituted the private property of individuals or families.
- ◆ Res publicae covered assets such as roads or public buildings that were created by the state for public use.

The last category relates to our topic, the commons:

- ◆ Res communes referred to natural resources such as air, rivers and the sea, which constituted the common property of all.



The three streams flowing into the commons current.
GRAPHIC ILLUSTRATION
BASED ON ONE APPEARING
IN PETER BARNES, CAPITAL-
ISM 3.0

The above distinctions even today help us perceive different forms of possible ownership systems in society. However, the nature of a commons is not just a matter of ownership, but also of social rules and traditions.

The Roman categories of property must be modified to take account of contemporary realities, of course. For example, *res communes* today must be understood in a wider sense, to include people's shared cultural heritage and collaborative creations in the digital world.

WHAT'S GOOD TO KNOW

It is important to understand that the commons and "public goods" are not the same thing. Some commons share certain characteristics with public goods, which is why the two are often conflated. But they also differ in significant ways.

For both commons and public goods, it can be difficult to exclude someone from using them. We all benefit from photosynthesis and we can all use Wikipedia or rely upon mathematical algorithms.

A basic difference between the notion of the commons and the classical economic categories of goods is that many commons are inherited: they are either gifts of nature and have been nurtured as such, or they were produced and handed down by persons and groups who are not always clearly identifiable. This could involve a historically lengthy process (cultural traditions, cultural landscapes, languages) or a very short one (Wikipedia, free software).

The commons also emerge when they are created by individuals working together who then declare them to be a commons. No politician or state agency is involved. Examples include the Internet markup language for webpages, HTML, and the Internet-related protocol http, and works released under a free licence).

By contrast, public goods are for the most part produced by state institutions. The laying of roads, building of a lighthouse and supplying funds for public security are all examples. The focus of public goods tends to be civil infrastructure and services that the public needs.

Public goods require that the state plays a dominant role. The commons require above all mature, engaged citizens. Living in a commons-based culture means taking one's life into one's own hands.

It goes without saying that the commons or the rights of people who belong to a commons are often dependent on the nation-state. Thus the preservation and support of global commons – the atmosphere, oceans, space — is hardly possible without inter-governmental agreements.

If sea and airspace were to be parcelled out like land, then each state would somehow have to assure itself an adequate number of interconnected marine “waterways” to ensure its own ships a free run. Only affluent countries could afford this, and all others would have to pay a toll to travel on “alien” waterways or receive permission to move around. Fishermen would be left only with portions of the sea that they owned or rented; divers and others engaging in water sports would be restricted to zones specifically earmarked for the purpose.

The sea is a commons. Everyone has the right to travel on it. Mobility would be unthinkable without the commons.

“Ocean and reef”
PHOTO: FLICKR-USER
ALIWES144



Most states claim exclusive rights to large stretches of sea in front of their coasts for economic use, while ships can travel unhindered everywhere provided their motives are peaceful. So far the high seas have not been divided up into individual plots.

The same is true of airspace. In 1954, a Canadian filed a lawsuit complaining about aircraft flying over his plot of land. He argued that owning a plot of land also meant owning the earth beneath it, down to the centre of the earth, and also all the air above it, extending endlessly up to space. Aircraft seeking to enter “his” airspace must accordingly seek his permission first. Fortunately, the judge decreed that air and space could not be owned; rather, they the common inheritance of mankind. They are commons, or in legal terms, *res omnium communis*.

Suggested literature: Silke Helfrich, Heinrich-Böll-Stiftung (ed.): *Wem gehört die Welt? Zur Wiederentdeckung der Gemeingüter*, 2nd edition, Munich 2009

BUILDING BLOCKS OF THE ARCHITECTURE OF THE COMMONS

The commons are made up of three basic elements: the building material, the people and the rules and standards that allow all elements to come together.

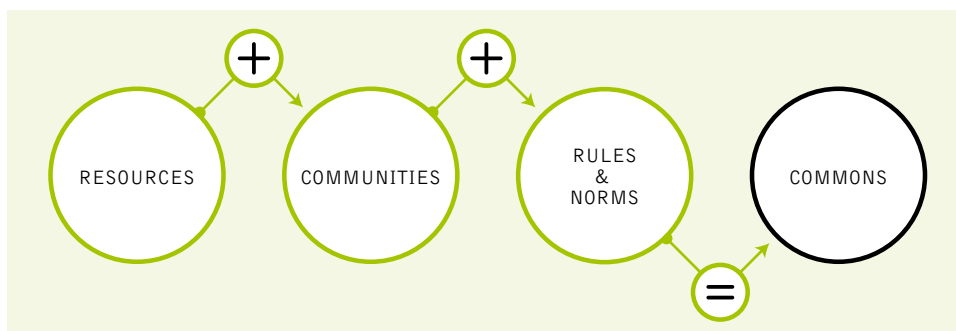


The first building block is material. It relates to the resources themselves. They can be physical, such as water, soil and the atmosphere, or intangible, such as genetic information, software code, algorithms and cultural techniques or even the time at our disposal. All these are common pool resources. We all have natural entitlements to use them.

“There is no commons without commoning”
PETER LINEBAUGH

The second building block is social. It refers to people who make use of these resources. The idea of the commons is inconceivable without it being linked to people engaged with each other to manage a resource in specific social milieus. Knowledge can be used by people to make a diagnosis or find a cure. Cultural techniques can be used to create something new. Resources are converted into commons by the people who collectively use them.

The third building block is regulatory. This encompasses the rules and norms governing the management of the commons. These vary greatly. Regulating the use of bytes and information is quite different from managing natural resources such as water and forests. What is common to all of them is that every community of users decide for itself how their resources are to be managed. This can succeed only if a group of people evolves a collective understanding of how a resource should be managed. The complex social process behind this is called “commoning” – a term recovered from medieval times by the historian Peter Linebaugh. In this sense, the commons is a “verb,” not a “noun.” From this “commoning” there emerge rules and norms which are to be negotiated in processes that are often conflict-ridden.



In some areas of the city of Boston in the USA, there is a winter ritual that is performed after the first snowfall. People shovel out a stretch of the street and then place boxes, garbage bins or old chairs in the open spaces to mark them as “their” parking spots until the snow melts. Elinor Ostrom had the following to say about this ritual: “That is a commons.” Why? Because there is consensus in those neighbourhoods that people who shovel out the parking spaces are entitled to temporary “use rights” of the spaces. As in the case of the deck chairs on the cruise ship, a social community comes up with a simple solution for dealing with finite resources: temporary rights of use rather than unrestricted, permanent rights. Even simple solutions sometimes emerge only after a long struggle.

Parking in wintry Boston
PHOTO: FLICKR-USER ANDWAT



HOW DO THE COMMONS AFFECT US?

THE COMMONS ENHANCE QUALITY TO LIFE

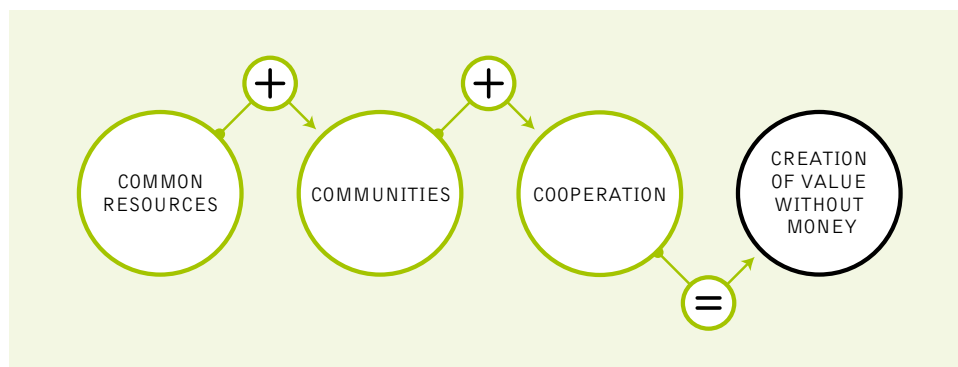
The commons are sources of value and valuation outside of markets, or as a complement to market value. People benefit in more ways than one if they can avail themselves of the commons alongside the services provided by the market and the state.

These benefits are obvious where – as in innumerable villages in the developing South – collectively used natural assets such as pastureland, water, lakes, forests, fields and seeds form the basis of livelihood. Community rights ensure access to essential resources free of charge, which is paid for with the coin of cooperation and solidarity. Once the products flowing from these resources food, building materials, medicine, heart and so forth are only available as market products, to be paid for with money, many people will be forced to do without.

The commons allow the poor to make both ends meet. They constitute the difference between an existence in poverty and one in dignity.

The situation is similar in the cities. Even here, the commons can provide “free” benefits that would otherwise require payment. Thus, playgrounds, squares, yards and parks serve as areas of recreation, social interaction and self-expression. Every person has a right to such amenities, and it is the role of politics to remind us that such rights must not be abridged. They must be defended collectively against private appropriation and commercialisation. But more often than not – and this is the real “Tragedy of the Commons” (see p. 16) – the actual role of the commons only becomes apparent when these commons are endangered.

Thus, for instance, intensive social cooperation made possible by urban density is a type of wealth that is often not recognized. Short distances promote savings to the extent that shopping may be undertaken on foot or children sent to school without the need for transport. Spatial proximity stimulates networking and cooperation, as in the case of self-administered kindergardens, neighbourhood help and collective gardening. For each of these cases the following equation may be framed:



“You and your family are more affluent than you think. You have a share in the commons.”
HARRIET BARLOW, ON THE COMMONS

THE COMMONS ENABLE PARTICIPATION

“Community gardens are all about 50% gardening and 100% local political organisation.” states Karl Linn, a leader of the flourishing North American community garden movement. Even in Germany, community gardens are experiencing a renaissance. There are now nearly 100 “Intercultural Gardens” in 55 cities, and another 50 are in the process of being developed. In most cases, citizens join together in associations to use fallow land for producing their own food, and as a place for the social integration of migrants – both male and female. Hoeing and digging together, they acquire new ground under their feet – in the true sense of the word. Intercultural gardens are sites of neighbourliness and cultural exchange. Those involved share space and time, exchange information and mediate conflicts. They produce food for themselves without the rigid hierarchical structures of business or government.

Neighbourhood gardens, small gardens, herb gardens and guerrilla gardens: the desire to create urban green spaces is blossoming everywhere. Thus we have oases of community innovation emerging and flourishing in city centres. For instance, several hundred families from different countries live in Sahlkamp, a neighbourhood in Hannover characterised by high-rise buildings, unemployment, youth violence and drug abuse. Adults in the area are often isolated and hardly participate in social life outside of their ethnic networks. But in recent years, they have converted the roofs of underground garages in Sahlkamp into small, idyllic gardens.

Baltic Street Community
Garden, Brooklyn NY
PHOTO: FLICKR-USER
FLATBUSH GARDENER



Urban landscaping forms an important element in future urban development. Horticultural and agricultural enterprises that still exist in city centres are no longer regarded as “vestiges” of pre-industrial times but as building blocks of future urban planning. “What is anticipated here is what future development needs for a high standard of living: sustainable life styles and new models of affluence,” writes the *Stiftung Interkultural*, the country-wide coordinating agency of the network *Intercultural Gardens*.

The community gardens are life forms and designs that make life livable in cities, which grow increasingly complex and anonymous.

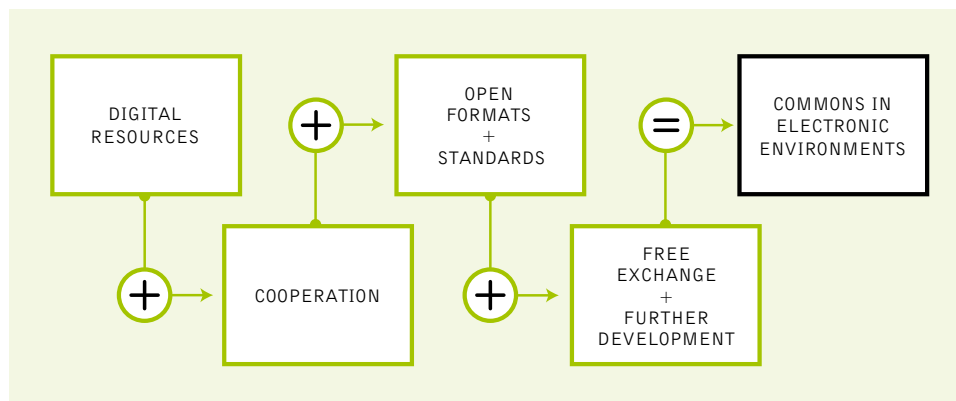
THE COMMONS PROVIDE PLATFORMS FOR CREATIVITY AND COOPERATION

It has long since been known that cooperation can be immensely productive, especially in the digital world where completely new forms of cooperation have arisen. Thanks to electronic communication, for instance, thousands of people are able to contribute code for building free operating systems and other free software programmes. In research, as in e-learning, collaborative, globally distributed, self-organised forms of work are taken for granted today. In the digital age, creativity is taking on new forms that transcend the individual.

Often it is found that the enthusiasm and accumulated competence of lobbyists is in no way inferior to the knowledge of experts from, say, commercial software firms or media companies. Four heads can think more than two. In the ever-increasing number of Web 2.0 applications such as Twitter, wikis and blogs, new forms of cooperation and knowledge-sharing are arising. The Internet can host new platforms for collaborative intelligence and decentralised ingenuity, which are then made available to all. Contributions from a large number of people can generate not just software, but research projects, film or audio productions and even entire dictionaries. Through broad-based participation, online communities are able to produce high-quality products and services, which may also have monetary value.

Crucial to this economy of sharing and participating is that everything is freely accessible to everybody, thereby guaranteeing that work in this area will continue and whatever emerges will be considered new commons.

“Why does Figaro sing, why does Mozart write music that Figaro sings, why do we all find new words? Because we have the capacity to. Homo ludens meets homo faber. The social condition of global interlinkages, which we call the Internet, enables each of us to be creative in a new way we had never imagined before. If only we would not let ‘property’ be thrust in between.”
EBEN MOGLEN, DER ANARCHISMUS TRIUMPHIERT



Almost all societies show some combination of competition, planning and solidarity, although a shift in the relative proportions may be observed in the course of history. We should remember that the exchange of goods through the market – however all-encompassing and natural it may appear today – is merely one way to supply goods to people. Alongside the market are at least two other channels of supply: state-organised production, and production and distribution in communities. While the principle of competition theoretically prevails in the market, and the state uses the principle of planning, communities proceed primarily on the basis of social reciprocity.

In recent decades, the logic of the market and state has eclipsed people’s confidence in cooperation and social reciprocity as ways to achieve common goals. At the same time, the search for community ties and cooperation seems to be asserting itself once again – alongside the desire for individual freedom. That is arguably why interest in the commons is rising; it serves this need. This spirit lies behind the cooperative management of fishing grounds on Canada’s Atlantic coast as well as the collective development of freely accessible sources of knowledge in the commons-based economy (software, research data, scientific journals), a process often called “peer production.”

A solution to the present problems does not lie in the state restraining itself to make room for the market but, rather, in its stepping out to guarantee communities the right to manage and use their commons.

EXCURSUS: THE TRAGEDY OF THE “TRAGEDY OF THE COMMONS”

The American biologist Garrett Hardin gave the world a powerful metaphor in 1968. In that year, the prominent scientific journal *Science* published his essay, “The Tragedy of the Commons.” Hardin’s metaphor of the pasture, to which all herdsmen drive their sheep, made an impact. Hardin argued that if herdsmen shared a pasture for grazing their sheep, every herdsman would maximize his personal gain by adding one more sheep to his grazing herd, and then another, and yet one more. To the individual, the short-term gains are tangible and “rational”. The costs of such behaviour, though, extend beyond any individual herdsman, and affect everyone today and will be extended gradually into the future. Hardin was convinced that the dynamics of such behaviour are mostly unavoidable. The impact of the over-exploitation of the commons is not felt until the pasture is ruined and cannot feed anybody’s sheep. A staggering conclusion indeed.

“The first person who, having fenced off a plot of ground, took it into his head to say this is mine and found people simple enough to believe him, was the true founder of civil society.”

JEAN-JACQUES ROUSSEAU

Since the 70s, the metaphor of the overgrazed pasture common was indiscriminately applied to numerous situations involving collective resource management. It entered social science and economic textbooks and shaped the thinking of whole generations of students. In the process, the notion of the “tragedy of the commons” grew into an indestructible myth. This remains largely true today despite the many empirical flaws in Hardin’s argument. Referring to the most significant section of Hardin’s essay, the economist Partha Dasgupta says that it is “difficult to find a passage of comparable length and fame that contains as many errors” (*The Control of Resources*, Oxford 1982). It took extensive empirical research by the Professor Elinor Ostrom and her teams to expose the coarseness and fallacies of the “tragedy” argument.

Hardin did his bit to feed the narrow perception of man as *homo oeconomicus* – as nothing but a profit maximiser. As early as in 1954, faced with the threat of excessive fishing in the seas, the economist Scott Gordon similarly called no-man’s land the property of all. The saying “everyone’s property is no one’s property” became well-known. One hasty inference followed the other, and soon it was considered a truism that the tragedy of

the commons is inevitable as long as everyone has access to the commons. The commons is considered everyone's and, consequently, no one's property.

Years later, Hardin was compelled to modify his essay by conceding that he had in fact described the "tragedy of the unmanaged commons." (The term is something of an oxymoron, because a commons by definition is *managed*.) But it is true that in his original essay Hardin described a situation of unhindered access to land that belonged to no one – an open access regime. He had mixed up the commons and no-man's land.

However, a commons is not no-man's land. A commons emerges from the capacities of a user community to establish rules for access and use, for the benefit of all, and to identify and punish "free riders" who abuse the commons. A commons always belongs to a group of commoners.



"Village green Großarmschlag"
PHOTO: KONRAD LACKERBECK,
WIKIMEDIA COMMONS

Further, Hardin's analysis assumed that herdsmen would not take the time to converse with each other and work out rules for managing the commons. In real life, of course, people who collectively manage natural resources are constantly talking and negotiating.

The commons emerge and evolve on the basis of communication in vibrant social networks.

Hardin obviously supposed that people primarily produce to sell, and with corresponding profit expectations. But we need the

The commons for Hardin is a land of plenty that is picked clean. For his critics, it is more of a joint picnic to which each individual contributes and where each helps himself in moderation.

BERNHARD PÖTTER, LE MONDE DIPLOMATIQUE, AUGUST 2009, P.10

numerous commons primarily for ourselves, in our lives beyond the marketplace. Once this is ensured, commercial use cannot be ruled out; it just must be kept within reasonable limits.

When it occurs, the so-called “tragedy of the commons” is unfailingly a tragedy of the human community – its inability to evolve and implement rules for managing the commons.

Nowhere is this more evident than in cases where access to natural resources is actually unregulated, or where cooperation within the community does not exist for various reasons. The dramatic overexploitation of the atmosphere and the threatening prospects of fish stocks being wiped out across the world are testimony to the failure of numerous attempts made so far to get the international community to agree on a set of meaningful rules. This must – and can – change.

THE COMMONS ENABLE US TO COLLECTIVELY ACHIEVE MORE AND DO BETTER

In 1991, the Finnish computer science student Linus Torvalds decided that he wanted to develop a new computer operating system that could emulate Unix, a complicated software program that was copyrighted. At first, Torvalds only wanted to upgrade his newly acquired computer with missing functions, but after months of effort, he realised that his system could also be of use to others. "I am working on a (free) operating system (just as a hobby...)," Torvalds wrote on the Internet. He asked for feedback about what features other programmers might want in such a system. Weeks later he posted the software on the Internet. This enabled just about anyone to download Torvalds' code, use it and even adapt it to his/her own needs, provided the user had the requisite programming skills.

Torvalds' announcement met with tremendous interest, for the operating systems available at the time either offered few features (as in the case of DOS) or were expensive. Moreover, they were developed by companies over whom the users had no influence. Linus Torvalds' approach was a sensation. He made the program's source code accessible to the public, explicitly sought feedbacks and the participation of the users, and made the results available to all. It took just over two years for over hundred people to develop Linus Torvalds' system, which was christened 'Linux' after its creator (a combination of "Linus" and "Unix").

It was at this time that the GNU project initiated by Richard Stallman (see p. 39) had developed several freely available components for operating systems. When combined with the core programme developed by Torvalds, the GNU programmes gave birth to a fully functional operating system that could be freely modified and that did not cost anything to acquire and use: GNU/Linux. The operating system was licensed under something known as the General Public License (GPL) – a license held by a copyright holder (in this case, Torvalds) that authorizes anyone to copy, modify and share the program under whatever conditions they want *so long as the derivative work is also available under the same license*. This GPL license ensured that people could always access and use the program without anyone "taking it private." The code would remain in the commons.

Today alongside Windows and Mac OS, Linux is one of the three most widely used systems in the world. Even more popular with companies than with private users, Linux is particularly popular for use on servers that need to run continuously and reliably. The free operating system is used even where performance requirements are high; 90% of the 500 most advanced supercomputers run on Linux, for example.

Linux's success rests not only on the fact that the software can be shared and modified, as in a commons, but also on the community that is responsible for its development. The open, decentralised and seemingly chaotic manner in which Torvalds and his fellow-hackers collaborated has entered the annals of software history as the 'bazaar model' – a system of open, diverse participation and loosely coordinated management. By contrast, the traditional style of software development is a more hierarchical, carefully planned "cathedral style" directed by centralized authorities and "experts."

Participation in projects for free software is often described by the 90-9-1 rule: 90% merely make use of the system; some 9% contribute to further development from time to time; while a mere 1% is involved on a regular and intensive basis. Some users sporadically contribute; others are intensively involved by choice. No one is forcing anyone to participate, but on the other hand, there are few barriers to participating. Each person decides for himself whether he would like to do something and if so, how much. More often than not, involvement starts with someone reporting a "bug" – something does not work properly; perhaps he may then write a "patch" to rectify the error, or he may test the system and document the problems – thereby contributing to the further development of the commons.

More experienced participants examine the code that has emerged. They decide whether it can be incorporated into the system without destroying that which is already in place, or if it needs to be corrected. There are approximately a hundred such "maintainers" with Linux who assume responsibility for specific sub-systems



Linus Torvalds
LINUSMAG.COM

Linux' success rests not only on the fact that the software itself is a commons; rather it rests primarily on the community behind its development.



Tux, the Linux penguin
BY LARRY EWING

and make sure that everything works. The longer and more intensive the work put in by a person, the less problematic it will be for his changes to be incorporated by the maintainers in charge. The role of the maintainer does indeed entail greater responsibility and influence over the future development of the project; yet it does not relieve him or her of accountability to the community of programmers.

The Linux community has managed to find a free and open style of software development, characterised by few formal rules and the absence of command structures. It has also in the process disproved the "Brooks's Law," applicable to classic software development, which contends that the expansion of the team beyond a certain point slows down software development because communication becomes disproportionately complicated. Development in the bazaar style works with the following rule applied to it:

"Provided the development coordinator has at his disposal a medium that is at least as good as the Internet, and this coordinator knows how to lead without using coercion, several heads are bound to work better than just one." (Eric Raymond)

Recommended literature

Eric Raymond: *Die Kathedrale und der Basar*.
<http://gnuwin.epfl.ch/articles/de/Kathedrale/>

THE COMMONS ENSURE SOCIAL COHESION

At present, the earth's atmosphere, the largest common resource available to us, is a reminder that physical assets and community formation are closely linked. In order to convert the atmosphere from no-man's land into a commons, the world's nations must somehow constitute themselves into something of a world community. Because the commons need "caretakers" who are responsible for the judicious use of the collective resource, nations must establish new forms of cooperation. As this suggests, the commons is a way to nurture social cohesion in society, which in turn makes a fundamental contribution to well-functioning markets and the states.

WHAT'S GOOD TO KNOW

Not everything is a commons, but there is a lot that can become a commons. The term 'commons' denotes that a resource is being managed and used collectively in the long term without being used up or withheld from others. It also indicates that:

- ◆ an identifiable group is taking care of the resource in question and nurturing it rather than letting it be freely exploited;
- ◆ this group formulates and agrees to suitable, transparent rules for managing the commons, rather than accepting a "free for all";
- ◆ the management of the resources is for the most part self-organised rather than externally controlled;
- ◆ all the users can actively help shape and determine management policies rather than relying upon representation; and
- ◆ the benefits from the commons are distributed widely rather than concentrated among a few.

EXCURSUS: I AND THE OTHERS

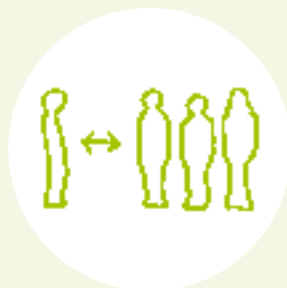
“The freedom of the one ends where the freedom of the other begins.” This idea implies that we as individuals are isolated beings; that we come into conflict with the interests of others if we pursue our own interests (or those of our families and friends). However, the freedom of others does not necessarily mean the end of our freedom. Rather, it is a *condition* of our freedom.

The commons are not static. They are constantly subject to change from both local conditions affecting the commons and the multiple commoners who are managing it. Thus, the diversity and vitality of the commons says a lot about our society. Without people actively taking care of the commons, there would be no commons at all – which is precisely the problem for many global collective resources such as the atmosphere and the oceans. Without active commoning, resources that are consumed everyday are depleted, and artificially rendered scarce or turned into no-man’s land.

He who supports the cause of the commons not only benefits himself but also others. He who damages the commons also inflicts damage upon himself.

The idea of developing ourselves at the cost of others reveals itself to be an illusion. For, the development of all is a condition for the development of the individual, and vice versa. On an individual level, we evolve by doing things that can be useful to both us *and* others. I can only progress if others also progress. This is the distinction between self-development and self-fulfilment.

There are some who develop free software and create free music, there are others who are involved in the environmental movement, and still others campaign for intercultural gardens or public spaces. All are developing the commons for themselves – and for others. Whatever the individual undertakes, he will achieve more, and do better, if others are also involved.



THE COMMONS: WHOSE PROPERTY?

TO WHOM DOES THE SKY BELONG? AND THE STILLNESS? THE LAND?

“All men are originally...
in rightful possession of the
soil...they have a right to be
wherever nature...has placed
them. This possession...is
collective in nature owing
to the unity of all places on
the surface of the earth, this
globe....”

IMMANUEL KANT

Every individual – both in the present and in the future – has the same right to use all that is not assignable to any individual in particular. This makes it all the more necessary to pass on these assets just as they are, or in an even better state, to future generations.

Responsibility for the commons stems from responsibility for a livable future.

Society at large must be responsible for controlling the use of the forests and water, source code and seeds, urban spaces and cultural techniques. For, the commons will only then be preserved as they are if we succeed in making the use of these resources transparent in the interest of the public.

The state or private actors are only (temporary) custodians or trustees of the commons.

Who should be assigned what role to protect resources? Responses vary depending on one's political perspective. Whoever is looking for evidence that the state is not administering the commons in the public interest is bound to find it – just as he is bound to also find examples of the state being a good trustee. Whoever blames private, market-oriented players for plundering common resources or for unfairly restricting access to them will no doubt be able to cite an endless number of examples. However, a few instances in which market players act as responsible custodians of the commons, do exist. And, finally, if people themselves are given responsibility, there will be stories of both success and failure to relate as well.

Securing the commons is an eternal challenge that has no ready-made solution.

THE NEW GRAB FOR LAND

The South Korean company Daewoo Logistics wished to lease 1.3 million hectares of farmland in Madagascar for several decades. Korea needed food grains. These plans caused great indignation on the African island, eventually resulting in a government crisis in the spring of 2009. Ultimately, when the head of government, Marc Ravalomanana, was toppled, the Daewoo project died a natural death.

But the Madagascar incident made one thing clear: the attempt to grab land, one of the basic common resources, is not an isolated case. The governments of China, Japan, Malaysia, Saudi Arabia, Kuwait and Egypt are all on a massive “shopping spree” to buy huge tracts of land to grow agricultural crops. Research undertaken by the NGO GRAIN reveals that countries as diverse as Uganda and Brazil, Pakistan and Ukraine are either planning, or have already been finalised, plans to buy land.

Even in Sudan where millions go hungry, the Saudi company Adco has leased over 10,000 hectares of land to the north of Khartoum for US \$95 million; its intention is to grow wheat and vegetables for the people of Saudi Arabia.

These sorts of deals are giving rise to talk of neo-colonialism. The governments of the newly emerging economies are fuelling the new land grab. Their populations are growing, and consuming ever-increasing quantities of processed foods such as meat and milk. They also fear that rainfall-deficient areas at home will only get drier as climate change gets worse. Meanwhile, the agrofuel production sector wants to lay claim to ever-larger plots of land.

A dramatic structural change in land holdings is underway across the globe, driven by the rapid pace of technological development and emerging markets. For example, synthetic biology promises a world in which glucose, an agro-based product, can be extracted, fermented and processed into high-grade raw material for the pharmaceutical and chemical industries. Companies hope to turn self-replicating synthetic

microbes into live “chemical factories.” If successful, this innovation will in future consume enormous quantities of biomass, which until now have not been utilised or been available to communities. They will make market products out of resources that otherwise would remain in the commons. With this, the enclosure of the commons takes on a new, more disturbing dimension indeed.



Madagascar
PHOTO: FLICK-USER
LUC LEGAY

For Immanuel Kant, who is ideologically above suspicion, land should be treated as common property. But what exactly does it mean if land is considered a commons? Our society can hardly conceive a scenario whereby land would be available only for short-term usage rights rather than long-term, absolute rights. Even so, such a thought cannot be brushed aside as being taboo, for it is true that:

Land is limited in its availability; the rights of use of individuals are limited by the rights of use retained by all the “original, rightful owners” – i.e., the commoners.

Ownership rights alone cannot decide how the commons will be managed. After all, the prior question is how and by whom ownership rights were established in the first place. Who defines the rules of the game? Who decides if the rules will have fair and responsible outcomes for those people affected by them? Who enforces their observance? What are the conditions for ensuring that the commons will be available in plenty even tomorrow? There is no universal remedy, but there are nevertheless principles that support a life in which the commons thrive. There is one simple principle that may be derived from our rights of use:

Private ownership rights to the commons that are exclusive, indefinite and completely beyond the reach of others, are not permissible.

“Even an entire society, a nation, or for that matter all contemporary societies taken together are not owners of the earth. They are merely its occupants, beneficiaries, and must therefore play the role of boni patres familias (good family fathers) to leave the earth behind in a better state for future generations.”
KARL MARX, DAS KAPITAL, VOL. 3

PROTECTING MICKEY MOUSE

The American entertainer Sonny Bono, who went on to become a U.S. Representative, wanted to expand the terms of copyright protection by twenty years. After Bono died, his widow continued this crusade when she took over his congressional seat. It was not constitutional to make copyright terms perpetual because the U.S. Constitution declares that they must be of a “limited term.” This prompted the film industry lobbyist Jack Valenti to propose, somewhat jokingly, that copyright terms should last for “forever less one day.”

In 1998, the U.S. Congress nonetheless extended the various terms of copyright protection by 20 years. For works produced by individual authors, this meant that copyrights now last for the lifetime of an author plus 70 years; for corporate copyright holders, protection lasts for 95 years. The Sonny Bono Copyright Term Extension

Act – as it was called, in honour of the departed entertainer – locked up tens of thousands of works from the 1920s and 1930s that would otherwise have entered the public domain and be free for everyone to use. Among the works locked up by the new law were Ernest Hemingway’s works and George and Ira Gershwin’s music. Because Disney’s key motivation was to keep its Mickey Mouse character from entering the public domain, critics dubbed the law the “Mickey Mouse Protection Act.”

“Disney Infinite Copyright”-
Symbol
WIKIMEDIA COMMONS



Eric Eldred, who had started a free-access online library of public-domain books, filed a formal constitutional challenge to the act. He argued that the law violated the “limited terms” provision of the copyright clause in the U.S. Constitution. However, the Supreme Court struck down the complaint in 2003, and Eldred lost the case.

The story of the “Mickey Mouse Protection Act” can be generalised. In recent years, the entertainment industries, publishers and other companies have greatly expanded the scope of copyright protection at the expense of authors and the public. The typical pattern has been to *take* from the commons, assert strict proprietary control over the “new work,” and then prevent those works from entering the commons of the public domain again, where they might be re-used.

Walt Disney’s success rest to a large extent on drawing upon the wealth of fairy tales and legends, and from classic literary characters that had entered the public domain. The Disney Company, and a few others, “remixed” the original folk characters of Snow White, the Little Mermaid, Peter Pan and Alice in Wonderland, among many others, infusing them with fresh life and using their enormous market power to appropriate them as its own. It was a lucrative business model the rested on drawing from a common cultural heritage. Yet rather than “give back” to society by letting those characters re-enter the public domain (after the initial investments had been recovered many times over), Disney was determined to extend its lucrative control over these characters by obtaining twenty more years of copyright protection.

A society needs to have confidence in the power of infinite creativity – the power to create new figures and stories. Creative people depend on the possibility of creating freely while drawing from the wealth of cultural commons. Our culture remains an inexhaustible reservoir of stories, images, music and much more, if the access to these assets is not blocked or restricted. Culture is dependent on “fresh investments” being made without private rights to cultural goods being held on to unreasonably – “forever less one day”.

Irrespective of whether the assets are material or immaterial in nature, whether they form part of the natural, cultural or social sphere, both over-exploitation and under-exploitation may be avoided by measuring the form of ownership against two conditions:

- ◆ First, every time the commons is used, it must not be abused, overused or destroyed; and
- ◆ Second, no one who is entitled to use the commons or has been historically dependent on it, should be denied access or the right of using it.

Recommended literature

Strengthen the Commons. Now!

<http://www.boell.de/downloads/>

Almmendemanifest _ engl _ screen.pdf

"If I see father than others,
it is because I stand on the
shoulder of giants."
ISAAC NEWTON, IN A LETTER
TO ROBERT HOOKE

WHAT'S GOOD TO KNOW

COMMON PROPERTY IS DIFFERENT FROM THE COMMONS

Common property is a form of collective property. As opposed to private property, assets that form part of common property belong to not just one but many people. These could be members of cooperatives or even joint-stock companies. As in the case of private property, common property bars people who are not co-owners, from accessing and using the property. This is quite different from a situation in which no one is denied access, which is often known as an "open access" regime.

HOW SOMETHING THAT IS NOT SCARCE BECOMES SCARCE **A STUDENT'S EXPERIENCE WITH MODERN COPYRIGHTS**

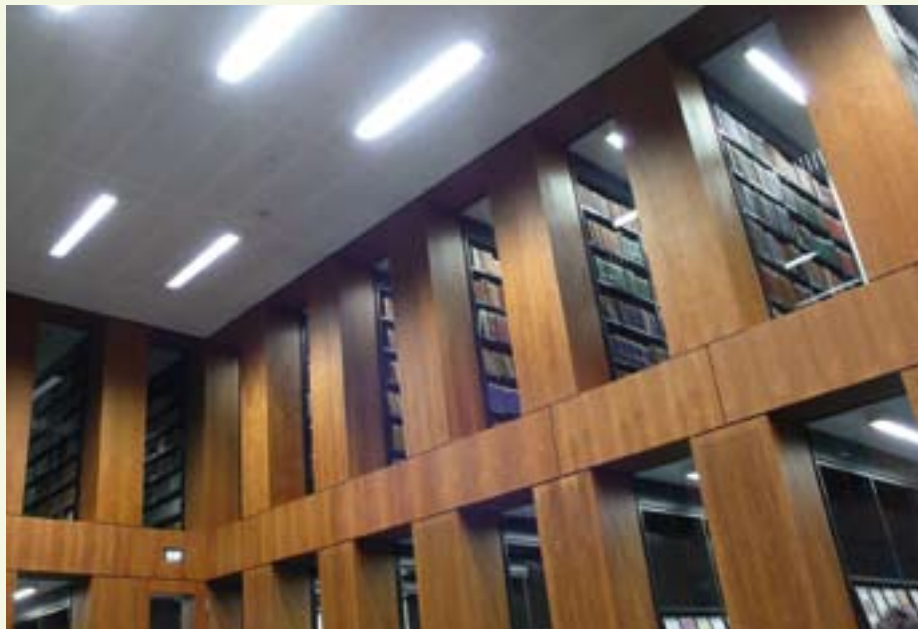
I was researching on the Net for a paper on the commons and chanced upon something useful. I was able to download some texts quite easily and incorporate appropriate passages into my draft paper. And then I came across an interesting text which could only be accessed for a fee or if I read it in a library that had already secured rights to it.

"That's not a problem," I thought to myself. The university library is accessible on the Net, and naturally its catalogue too. And sure enough, the library catalogue confirmed that the article was "available in electronic form." But when I attempted to download it, I got an error message: "This article can only be viewed within the library." Why is that? I am startled.

So I set out for the state library by bus, taking almost an hour to get there. Once there, I found the article I was looking for in the online catalogue. But then another message appears on the screen: "The article from the anthology sought is presently being viewed by another user. The library however has only acquired a single anthology and, as per the principle of accessoriness, is only allowed to give electronic access to that many articles at the same time as it has rights to the purchased copy. We do not see an exception to the rule in your case."

The public library as a Faraday cage.

PHOTO: FLICKR-USER SLAB
MAGAZINE



Once again I was out-foxed. True, I did not understand what "accessoriness" meant, but I did sense what the implications were. I had to wait. But why? Had I not learnt in an economics course recently that electronic resources are non-rival in use? My using them does not impinge on someone else using the same resources.

All of a sudden I realized what it means when such things as a text are restricted and made exclusive, in contravention of the economic theory. But a coffee break is always good ...and after coffee, I finally have a free hand!

When I finally get the article on the screen, however, it is quite long. So I want to save it on my thumb-drive so that I can read it carefully later. I try the "Save as" command, and for the third time I am startled. This time I am told that the text cannot be saved.

With no other option left, I begin to read the text. I next try to find out where exactly the term "commons" appears in the text, because that was my primary concern. Result: "The search item was not found." That's strange, I think, because this is a specialised paper. I try again by entering a common word. Again: "Item not found." The search function does not work for the entire text!

Exasperated by the whole exercise, I decide to copy and transfer to my thumb-drive only one important sentence which I want to use as a quotation. But even here I don't have a chance. I'm finally confronted with the crucial piece of information: "This is a DRM-protected PDF, all rights reserved for the publisher. Read-only text. Note-taking permitted."

I had not expected such technical safeguards in a public library. This left me with the following options: either I spend the next two hours in front of the monitor and excerpt from the text, as was the practice for centuries in the world of Gutenberg 500 years ago. Or I leave the reading room and dismiss the text as unimportant. The third option is to buy the article online at home from the publisher for 30 euros. This option I dismiss since I would thereby only be securing a licence for my personal use on my personal computer. Oh yes, there's something else: protection of the article through Digital Rights Management (DRM) is in my own interest, the notice tells me.

I decide to make do without the article, but I at least wanted to know why things were as they were. Until then I had associated copyrights with the tussle over the use of music, videos, games and popular literature. But what about research, teaching and learning? Article 5 of the Basic Law came to my mind:

Article 5 of the Basic Law (Grundgesetz):

(1) Every person shall have the right to freely express and disseminate his opinions through speech, writing and image, and to inform himself without hindrance from generally accessible sources [...]

(3) Art and scholarship, research and teaching shall be free [...]

A public library that has paid for the books in its collection is generally accessible – yet in this case I did not have unhindered access. And had I also misunderstood the point about academic freedom? When I turn to my professor to have this clarified, I learn that the rights guaranteed by the Basic Law and the rights explicitly stated in a specific law with limitations and exceptions are two very different things.

My case was governed by the Copyright Act, and this law first and foremost protects the copyright holder or the one to whom copyright holder has sold or given rights, such as a publisher or estate. These expansive copyright rights could certainly be limited in order to serve the public interest – if law-makers were to so decide. In principle it is possible to make it legal for libraries to provide access to electronic materials without the permission of the copyright holder. My professor drew my attention to Article 52b of the Copyright Act, which regulates the "reproduction of material in electronic reading places in libraries [...]." There I found, explicit statutory language that had prevented me from working in the library as I was wont to on the Net.

Honestly, I don't understand it. Why do our parliamentarians pass a law that makes it more difficult for students and professors to access knowledge and information than in the age of Gutenberg? Particularly given the fact that the production of this information generally takes place with public funds! I think this calls for a constitutional challenge. At any rate, I have one definite proposition for my paper:

Whatever has been public or financed with public funds must remain accessible to the public.

A well-developed knowledge commons is to thinking, producing or healing what air is to breathing."

ATTAC-BASISTEXT 15 –
WISSENSALLMENDE

WAR AGAINST FISH

Fishing trawler
PHOTO: FLICKR-USER
MARITIMUS



It is the year 2048. Global tuna fish stocks had collapsed 40 years ago. This is also the case with one-third of all commercially exploited fish species. Fishing is not worth the effort any more. Moreover, bottom trawling – a method of fishing so crude it is equivalent to clearing the forests to get the game – has inflicted such damage to the bottom of the seas that it will be felt for centuries. Although fishermen and politicians involved with fishery had been alarmed since the 1990s, a change of approach invariably failed to materialise due to the short-sightedness of the players involved. Meanwhile, as experts had prophesied way back in 2006, commercially exploitable fish stocks have started depleting all over the world.

The seas are dominated by jellyfish which no longer have any natural enemies. For two decades, tourism struggles to survive on the coasts. It finally grinds to a halt in the 2030s. Millions of fishermen as well as people employed in the fish-processing industry and in the coastal area have lost their jobs. Social tensions in these regions are on the rise.

In just a few decades, intensively farmed aquacultures – originally considered an alternative – had laid waste to entire stretches of the coast. The soil is contaminated with the excrement of cultivated fish and antibiotics; it is saline and useless. Vying for the remaining fishing grounds extending to a depth of up to 3,000 meters are two international companies with their high-tech trawlers. Their monopoly over the rare and expensive delicacy is threatened only by armed illegal ships. These ships were captured by pirates at the height of the crisis, just when the UN had made a last desperate attempt to stem uncontrolled high-sea fishing before the coasts of the developing countries, and reduce global catches.

The consequences for people all over the world are dramatic. At present, the basic supply of protein for one-sixth of the world's population is severely threatened. Hunger revolts are the order of the day; an ever-increasing number of people are migrating elsewhere. The war against fish has turned into a war against people.

CHECKERED LIFE ON SEA AND LAND



Taken in Madagascar
BY JONATHAN TALBOT
WORLD RESOURCES INSTITUTE

It is the year 2048. Fishing policy underwent a spectacular change in 2012, the year when the EU's common fishing policy was reformed. Within a single decade, the size of the global catch of 90 million tons at the time was reduced by one half. The quota recommendations made by the International Council for the Exploration of the Seas (ICES) were regularly undercut, for overexploitation of fish stocks worldwide had horrified the population and caused an uproar. Politicians who wanted to continue the same policies were widely denounced. Consumers boycotted almost all products that did not bear the seal of the Marine Stewardship Council. Half the number of fishing vessels – some 6,000 ships – were de-commissioned and the fuel consumption of the rest of the fleet drastically reduced. Whoever engaged in bottom trawling had to relinquish his fishing licence. The allocation of available fishing quotas depended on fishermen meeting stringent criteria for the catch. Preference was given to fishing enterprises and cooperatives that respected the natural reproductive cycles of fish, showed little bycatch and guaranteed fresh products. Other issues that played a role in granting quota allocations to fleets included the number of jobs and the degree of job security they provided, their energy efficiency, and their willingness to reinvest profits in order to strengthen the community.

Fish piracy has been contained thanks to international cooperation. Protected marine areas include fish spawning grounds. The last of the industrial aquacultures disappeared at the end of the '20s. What followed was a boom in technology for innovative aquaculture – with closed loops, solar energy and fish meal-free feed. Even in tourist areas, only fresh local fish are served in restaurants. That's the way things are done! Wherever fish stocks face a threat, there is a ban on sales. Fishermen are trained in sustainable fishing methods, particularly in low season. They are paid for maintenance work or deployed for re-fitting the high-tech fleet. In the developing countries, coastal fishing and sustainable pisci-culture once again enjoy bright, long-term prospects. The pressure of migration is lower.

STRENGTHENING THE COMMONS: IDEAS, INITIATIVES, INSTITUTIONS

Wherever people vie for water and land, fishing grounds and forests, no one can behave as though he were in a land of plenty. But if resource use must be limited and shared, how can cooperation be achieved? How can we ensure that people think of others and of tomorrow in the course of their action?

Research on the commons provides some answers. It shows that people tend to over-exploit common resources if they do not know each other and do not communicate regularly with each other. But groups that communicate, coordinate and negotiate with each other can often achieve optimal results in resource management.

The over-exploitation of resources can be avoided by building trust. It is the most difficult yet most reliable way of ensuring that everyone's concerns are appreciated and acknowledged; the trust that results helps a group overcome its own self-imposed limitations.

Protecting, creating and expanding the commons must be rewarding and do more for one's reputation than an impressive career or a fat bank balance.

WHAT'S GOOD TO KNOW

There is no easy remedy. Prudent management of the commons depends on several factors:

- ♦ **The character of the resources:** Access to resources such as water, forests and the atmosphere – whose quality deteriorate with use – must be restricted in some fashion. On the other hand, resources such as language, knowledge and traditions – which become more valuable when used by many – are best managed through open access rules.
- ♦ **Geographic location and scale:** A commons requires different management rules depending on whether it involves a local, regional or global system. The village community is responsible for the village well; the people who use lakes and rivers and various regional and supraregional authorities can oversee a regional watershed; and the global community and international organisations are needed for global water management and the climate. There are only a few global natural commons – the oceans, the climate, global water management, the bio-diversity of the earth, among others – but these are particularly important for the survival of mankind. The problems associated with these commons are as complex as they are because direct communication, confidence-building and reliability at the international level are far more difficult to achieve than at the level of a village community. All the same, global commons are indispensable. Managing the global cultural commons on the other hand seems far easier. This is particularly true of knowledge in education and research because the production, dissemination and use of knowledge is in any case increasingly organised at the international level. This is one of the reasons for the success of the Open Access movement worldwide.
- ♦ **Experience and participation:** The indigenous communities of the Amazon have preserved the primeval forests as a global commons for centuries through their active participation and experience in working with the forests. It is why they are seen as having special rights of use.
- ♦ **Historical, cultural and natural conditions:** Areas where an active and vibrant (state) citizenry has evolved will have commons institutions that are different from those in areas where respect for fundamental human rights is still being fought for – just like water management practices in drought-stricken areas differ from those in areas of heavy rainfall.

- ◆ **Reliable institutions:** State institutions can serve as trustees, arbiters and partners with commons, as well as lobbyists at the international level. However, they can assert themselves in these ways only when they have democratic legitimacy, are transparent and recognised by the people. Corrupt or fragile states – or for that matter, governments and institutions that give priority to short-term economic interests over all else – will hardly prove to be useful.
- ◆ **The state of technological development:** Technology opens up new dimensions in the development of the commons, just as it can contribute to their scarcity. Whatever was previously becoming scarce – such as the availability of electromagnetic spectrum – can now be made more plentiful through digitalisation. An open spectrum platform is now possible. But on the other hand, the business owners of new technologies frequently seek to create artificial scarcity for software and content that could otherwise be made available to all without their quality being compromised. Just as land was earlier enclosed by barbed wire and fences, copy protection mechanisms attempt to erect new barriers around knowledge, ideas and culture today.

As this section suggests, the management of the commons is a complex social process that entails something other than regulating the relationship between the state and the citizen, and between the buyer and the seller.

OPEN ACCESS – THE BENEFITS OFFERED BY THE COMMONS FOLLOW A SIMPLE PRINCIPLE

Open access is increasingly becoming reality in scientific research. The Berlin Declaration of 2004 represents one milestone in this development. It describes the two preconditions to be fulfilled by open access publications:

Open access contributions must satisfy two conditions:

1. "The author(s) and right holder(s) of such contributions grant(s) to all users a free, irrevocable, worldwide right of access [...] and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship as well as the right to make small numbers of printed copies for their personal use.
2. A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in an appropriate standard electronic format is deposited (and thus published) in at least one online repository using suitable technical standards (such as the Open Archive definitions) that is supported and maintained by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving."

http://oa.mpg.de/openaccess-berlin/Berliner_Erklaerung_dt_Version_07-2006.pdf

These principles were and still are revolutionary. Knowledge producers, who are at the same time users of scientific research, have resorted to self-help methods to combat copyright restrictions and the inflated prices of scientific journals. The growing world of open access journals is transforming the publishing world, making it possible for anyone to access, copy and share works in perpetuity. As a result of open access, a great deal of research that the publishing industry previous acquired through contracts, in which authors usually surrendered their copyrights to publishers, is now being re-directed instead to the commons.

Open access does not produce *res nullius* but *res communes* (see p. 9). The rule that applies here is clear and simple: the authors of the published knowledge do not have their personal rights to access their works circumscribed. However, their works can be freely used and developed by every man and woman.

Another important aspect of the Berlin Declaration on Open Access is that it does not apply only to scientific publications but extends to all cultural works. This does not mean that creative individuals who are dependent on income from their works would have to forfeit their copyright protection or release all that they have produced to the commons. But major research organisations such as the Deutsche Forschungsgemeinschaft (German Research Foundation – DFG) have rightly enough drawn attention to the difference between works produced in a public environment or with public funds and the works of independent artists and journalists, which used to be privately financed. But even the latter must deliberate whether they are not better off using the potential of the Internet rather than continuing to rely on the generally small share of income accruing to them from commercial publishing models of exploitation.

Open access is a benefit-providing paradigm for the commons in the electronic fields. However, it needs to be structured in order to preserve the personal rights of the original author, which include:

- ◆ the right to recognition/attribution of authorship;
- ◆ the right to decide whether, when and how to publish; and
- ◆ the right to prevent harm to the artistic integrity of their work (a right recognized under European copyright laws).

As attractive as open access may be, commercial publishers tend to oppose it, and therefore its actual implementation must be fought for. Who is to bear the costs that arise from open access (even open access publishing requires editing, translating, web hosting and/or printing)? Could scientific institutions commit their authors, whose works had been supported by public funds, to deposit these in a public repository (in addition to commercial publication of their works) or a short while after commercial publication? Ought there to be commercial publication of any scientific works financed by public institutions?

A paradigm of change always has a difficult birth. But the idea of open access is reaching maturity and can no longer be blocked. More of the world's knowledge will surely become freely available in the near future. Knowledge will become what it always ought to have been: a commons.

Open access must not preclude commercial use of this knowledge. Only, in our scenario, it would no longer be a case of the users of commercial rights granting licences for use to society, but instead society granting commercial users licences for restricted use. It goes without saying – in line with the proven “riparian principle” in water law: there must always be a sufficient flow of freely available knowledge for all to us. We are all “riparians” when it comes to knowledge, software and culture.



THE RIPARIAN PRINCIPLE

The riparian principle holds that whoever owns land on which there is a flow or reservoir of water may not curtail the legal rights of use of the other users. Should there be insufficient water for all, then the rights of use are generally allotted according to the size of the land holdings. These rights of use for water cannot be allotted on their own but only in combination with the corresponding land holding. In addition, water may not be exported from the corresponding water catchment area. The principle has its origins in the English common law. In Canada, Australia and the eastern part of the USA, these riparian principles have shaped modern legislation.

“River Dochart”
PHOTO: MACIEKLEW,
WIKIMEDIA COMMONS

The challenge of economic policy is to address a paradox of the commons: the freer and more productive the commons, the greater the economic gains accruing from using them. History has shown that institutional agreements can successfully limit the use of nature in order to protect the public good. For instance, cattle in some commons were allowed to graze according to certain rules and cycles; logging in some areas was restricted in the upper reaches of the rivers in order to prevent downstream pollution.

Such rules exist even today, but globalisation has made the task far more comprehensive and complex. Public welfare demands that the interplay between man and the biosphere be restricted and reorganised in such a manner that natural ecosystems are not degraded and social conflicts are not aggravated. Basically there are three challenges that need to be addressed:

- ◆ Stabilising the exploitation of raw material at a renewable level and maintaining emissions at non-harmful levels;
- ◆ Restricting land use to levels that do not harm other creatures; and
- ◆ Re-structuring social relationships in such a way that distinct groups of people do not live at the expense of others.

To date, there has been no uniform type of institution to regulate people's relationship with nature. As with the other commons, nature has no one espousing its needs and interests in the political sphere either.

The commons have neither a seat nor a voice in the opinion-building and decision-making bodies.

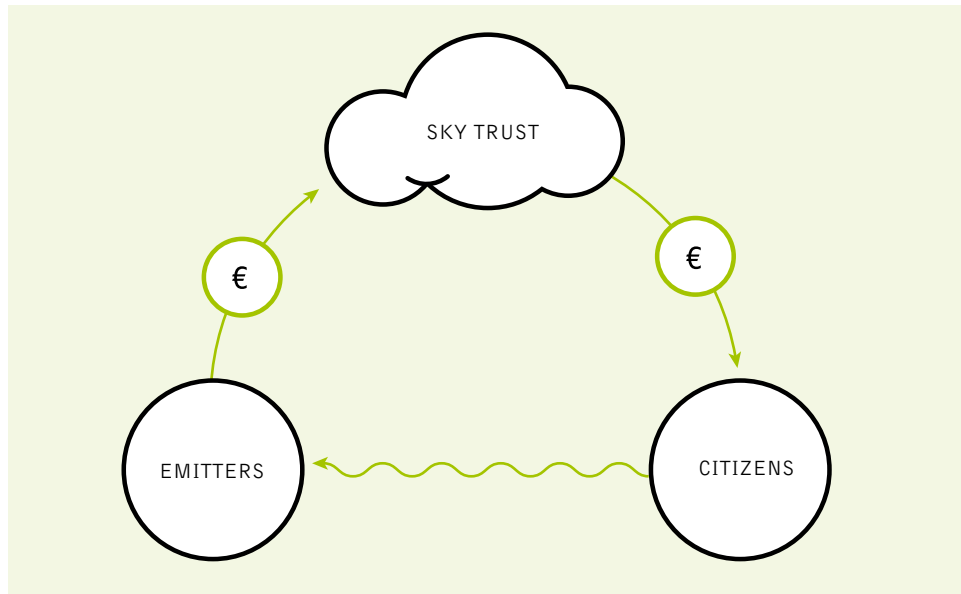
There is, to be sure, both national and international environmental law, but the rules that emerge are invariably the result of an unequal struggle between interest groups. The short-term interests of the present generation dominate. Time and again, the protection of ecosystems is left totally unaddressed. Hence the need to create new types of independent, commons-based institutions to protect natural resources.

New and innovative institutions for the commons are necessarily as diverse as the commons themselves.

The American author and entrepreneur Peter Barnes has suggested the establishment of "commons trusts" which would be responsible for the long-term health of the commons. As trustees, these organisations would determine the limits to which present and future generations would be allowed to use natural resources. The trusts would charge for licences to use the commons and ensure that the revenue collected would benefit citizens as collective owners, including future generations. With commons trusts, common property would have a stronger legal standing. Using resources of the commons would, in certain instances, come with a price tag, like using other's services or property in the one or the other way. Trusts could conceivably be used for managing fish stocks and forest lands, soil, seeds, groundwater and metals as well as CO₂ emissions and other pollutants. They could also function at the regional, national and global levels. With institutions such as an oceans trust, a seed trust, a soil trust, a climate trust or for that matter an advertising trust (to manage public advertising spaces), barriers could be erected to limit fierce investor demands for capital accumulation. Capital's hegemony over nature could be tamed.

A CLIMATE TRUST – OR THE SKY BELONGS TO ALL OF US

The model of a sky trust or a climate trust exemplifies how a commons trust could work. Initially proposed for the United States, this concept is based on the basic principle that all citizens are co-owners of the atmosphere or, more specifically, that part of the atmosphere which “belongs” to the USA in proportion to its population. To begin with, an upper limit is fixed for permissible CO₂ emissions. The right of use is auctioned in quantitative units, and the winners of the auctions receive permits to pollute specified amounts. The permits cost more when pollution levels need to be more severely curtailed – that is, as long as the atmosphere is being polluted by an ever-increasing number of people and by growing demands for energy. As permit costs rise, the prices of products and services increase. At the same time, the permit auctions raise a significant amount of money, which is then evenly distributed to all the citizens, after deducting the amount necessary for administering the commons.



Whoever consumes a lot, drives a car or flies, pays more (in higher prices for carbon-based goods and services) than he receives; and whoever consumes moderately and saves energy gets back the additional amount he had to spend or may even come out ahead. Thus, the sky trust is a mechanism for social fairness. Low-income groups and the poor benefit because they use little energy. By contrast, luxury or indiscriminate consumption is heavily taxed. The great virtue of the sky trust model is that it tries to protect the atmospheric commons while at the same time addressing the distributional conflicts associated with that.

The commons do not fall from the sky. They can be re-created and expanded any time that people want. Presented in the following pages are other ideas for protecting commons whose implementation rests only on society's willingness to initiate change. We can talk meaningfully of the intelligent management of the commons only if the commons are perceived and designated as such. But too often we become conscious of a commons only when we sense how much we are dependent on it, that is, when the means at our disposal (money or power) fail to substitute for our commons.

Recommended literature

Wuppertal Institut: *Zukunftsfähiges Deutschland in einer globalisierten Welt*, Frankfurt 2008, p. 285f.

Peter Barnes: *Capitalism 3.0 A Guide to Re-claiming the Commons*. Berrett-Koehler Publishers (November 1, 2006)

ADVERTISING NEEDS TO BE KEPT WITHIN BOUNDS

Advertising disturbs and destroys. It produces noise and waste. The “seamy side of surplus capitalism,” as Peter Barnes calls it, inundates our mailboxes and our imagination. Initially, we pay for it with our attention, then with our money while society is left to bear its environmental and social costs. “No dictatorship has ever been as good-humoured as this one,” observes the journalist Hanno Rauterberg. “We are assailed with objects, perfumes, spams, sounds – it is a veritable assault on our senses.”

Up to the age of five, American children have on an average seen 100,000 TV ads. Every year, 33 kgs of promotional pamphlets land in the average German mailbox. The bulk of these then find their way directly into the garbage bin. Year after year, the production of junk mail consumes 2.7 million trees, 1.157 million kWh of electricity and 4.62 billion litres of water, without producing anything in return.

Advertisements do not just eat into our natural resources; they also percolate into our free mental space. We can pass over them in newspapers and we can turn off the TV – which is why every conceivable public space has been turned into advertising space today. Buildings, squares and entire landscapes serve as billboards. Municipalities and institutions of all hues sell their most visible public spaces to the advertising industry – to fill up their meagre coffers or to finance other projects. Although this means that revenue from advertising could be used for charitable purposes, there is no way of escaping the assault on the senses and the commercialisation of public space. Individuals ward off ads with Robinson lists, spam filters, TV advertisement blockers or with a simple “no ads please.” Some countries ban ads during children’s programmes. The U.S. states of Arkansas and Maine are discussing bills for taxation of advertising. Metropolitan cities such as Moscow, Paris and Sao Paulo have imposed bans against “optical desecration” by giant billboards.

That is a good thing, for our attention should be ours. In order to dissuade people from littering our living spaces and spoiling our leisure time, anyone who wishes to use our space and time for advertising purposes should be made to pay. Thus, the greater the number of ads, the more the advertising companies will have to pay.



“Our intellectual environment, too, is a commons like air and water. We must protect it from attempts to gain arbitrary access to it.”

KALLE LASN

“Billboard”

PHOTO: FLICKR-USER
SIMON SCOTT

Fiduciaries could fix upper limits for the permissible “quantity of total disturbance” and sell tradable advertising permits to companies wishing to advertise. In this way, our psychological costs will get directly reflected in the balance sheets of ad agencies. The idea behind this is simple: Fewer advertisements – more inner peace – more money for ad-free channels and for reviving public spaces that are free of ads.

FOREST COFFEE – A SMALL REVOLUTION

“Kaffa’s forests are bleeding!” So says Mesfin Tekele of Southern Ethiopia, where huge jungle tracts are still home to a rich variety of bio-species: a veritable paradise. But the forester’s assessment of the prevailing situation is gloomy: between 1980 and 2000 alone, 43% of the green belt disappeared. Since then, experts reckon that the destruction of the Bonga Forest has only further intensified. The jungle of Kaffa is one of Ethiopia’s last surviving jungles: As recently as in the 1970s, 40% of the country was covered by thick vegetation; today, only about 2% is.

It is not only on account of their beauty and diversity that these forests are so precious; they are also a fundamental resource for all life and all economic activity in the region. And what is more, these forests—through a constant cycle of water absorption and condensation – have a cooling effect on the climate of the region. They supply the fertile farmlands of the south western highlands with humidity, while the moors and swamps of the lowlands feed the Gojeb River which flows into the River Omo, Africa’s lifeline. Not to mention the amount of carbon that is absorbed by the lush flora and forest soil.

Preserving this wilderness is a question of survival not only for the indigenous peoples and farmers who live in and off it. It is both a local and a global commons for which the international community is responsible.

Kaffa’s trees are disappearing because companies want to clear the land for plantations. They are also disappearing because families grow or migrate to the area, and need land for cultivation. Who can blame them wanting to survive? But the destruction of the forest also means the destruction of a source of life of direct significance to the people of the region, for they eat its fruits and use its medicinal herbs, honey and wood.

The question that is posed in Kaffa – as in the Congo, Indonesia and the Amazon – is: How can one serve the interests of men, mankind and the forests?

Because nature, culture and legal conditions differ everywhere, solutions are bound to be varied.



Wild coffee is an important source of income in Kaffa, Ethiopia.

PHOTOS: NABU/S. BENDER-KAPHENGST

In the Kaffa forests of Bonga, “Geo protects the rain forests” and a small organisation called “Original Food” has started paying the farmers double the price for a unique product: forest coffee. For Kaffa is the original home of the precious bean which grows wild in the forests here, and in a variety of species too. In buying the annual harvest from the farmers at a fixed price, one is not only ensuring that the farmers earn a higher income but also that they develop a greater interest in forest protection. For, with that, the jungle becomes valuable not by stripping it bare, but by protecting it and using it for as long a period as possible. The forests now generate income that provides a livelihood for 6,600 small farmers in the remote Kaffa region and their families, which tend to be extremely large.

In order to organise the marketing of coffee in a manner that is sustainable in the long term, forest dwellers and village communities have organised themselves into forest user associations. Often, under the direction of international associations, they mark off an area and set down common rights and rules together with a management plan. “Participatory forest management” is a classic procedure with the commons.

Decision-making processes and sanctions against rule-breakers are decided upon by the people themselves. This in many places is equivalent to a small revolution. In Kaffa, the farmers have succeeded in bringing about this small revolution.

ENERGY IN OUR HANDS

When Hamburg's Green Party (GAL) decided to form a government with the CDU after the state parliamentary elections in early 2008, they promised their rank and file that they would oppose any new hard coal-fired power stations. But just a few months later, it was clear that the only legal option left was to grant such permission; their election promise had to be broken.

The defeat was taken up by Hamburg minister for the environment Anja Hajduk and her colleagues as a challenge: they decided to set up their own power supply company and compete with the private energy supplier Vattenfall. Housed in the complex of Hamburg Wasser, a company in municipal hands, the new public utilities supply power using only renewable energy sources. When citizens vigorously demand green power, coal power may well be pushed to the very fringes of the market. The project leaders were sure of the support of the citizens, for within a period of three years, an unequivocal majority had voted in a plebiscite against privatising a hospital, the Hamburg waterworks and a part of the infrastructure for vocational training.



Bioenergy village Jühnde
WWW.BIOENERGIEDORF.DE

It is not only in the Hanseatic city that public utility companies are experiencing a renaissance. The impetus for this comes from all parts of society. Coalitions of citizens, organisations and often even opposition parties time and again have protested against plans by municipal governments to sell off municipal property for short-term gains. In a citizens' petition for change in Leipzig, almost 90% of those eligible to vote prevented sections of the public utilities from being sold to the French concern Gaz de France. Even in Quedlinburg, Meißen, Freiburg and numerous other Bavarian municipalities, urban housing, savings banks and public utility companies were defended.

The citizens want local authorities to take control over energy production once again, to determine priorities and pricing, and even to let citizens directly take charge. This has already happened in Lower Saxony's bio-energy village of Jühnde, in Baden-Württemberg's Suppingen and among members of the Freiburg cooperative, "Energy in citizens' hands."

With a convincing energy-saving concept, efficient power-heat coupling and the switchover to locally available renewable energies, energy production today can be re-linked with communities – a radical decentralisation of the energy sector!

When energy becomes a commons once again, it would mean: lesser dependence on the energy giants and greater possibility of engaging in sustainable economic activity.

Recommended literature

John Byrne et al: *Relocation energy into the social commons*. Bulletin of Science, Technology & Society, Volume 29, Number 2, April 2009, pp. 81–94.

SELF-ORGANISED COMMUNICATION

Normally, access to a telephone network or to the Internet is obtained in the following way: A contract is signed with a telephone company or a provider in order to gain access. Once there was only one provider, the state-owned Bundespost (Federal Postal & Telecommunications Services). Today, there are a handful of large companies and any number of smaller competitors. But not much has changed – the customer can only be a customer, not a creator, publisher or anything else.

Meanwhile, technology also has alternatives to offer. WLAN establishes fast, wireless connections between computers. WLAN routers, which can transfer radio signals to computers in the immediate vicinity, are inexpensive. The spread of WLAN has been followed by free wireless networks: networks of people who not only use their WLAN routers to surf without a cable in their own backyards but also to provide anyone nearby with free Internet access.

Free wireless networks also enable direct communication between all the computers involved. Thus, communication structures can be built up even where there is no Internet access – for instance in the rural areas of developing countries. This means that the “\$100 laptops” of the “One Laptop per Child” project – which aims to provide as many children as possible with a laptop as a learning and communication tool – will certainly be able to form spontaneous networks with all the computers in the wireless range. Every new computer widens the range of the network since all computers that can be accessed through wireless can in turn become a part of the network. This is an attractive alternative wherever traditional channels of communication are absent or too expensive. The network benefits everyone, and everyone contributes to it.

Even more popular than email and other computer-based media is the good old telephone – but for this, the requisite infrastructure must be in place. The Village Telco Project and the Free Telephony Project are working together to develop free hardware and software for the cost-effective operation of telephone networks. The idea is to provide alternatives, especially to people in developing countries, who often have no access to commercial communication media. Everywhere people are working on the one or the other idea. They share the results of their work – free software and construction plans for free hardware – with all of us.

Links

One Laptop Per Child: www.olpc-deutschland.de

Village Telco: www.villagetelco.org

Free Telephony Project: www.rowetel.com/ucasterisk



PHOTO: FLICKR-USER
SUTTONHOO

D4T – AN AIDS DRUG FROM PUBLIC LABS



PHOTO: WIKIMEDIA COMMONS-
USER PÖLLÖ

The substance d4T was developed in the Detroit Institute of Cancer Research (USA) in the '60s during the search for a cancer drug. When AIDS broke out in the 80s, it set off a feverish search for suitable drugs for HIV therapy. At Yale University, researchers remembered the substance d4T, and further studies were conducted with funds from the US National Institutes of Health. In 1986, Yale University registered a patent on d4T for the treatment of AIDS. The pharmaceutical company Bristol-Myers Squibb (BMS) was then given an exclusive licence for further development of the product; it finally brought the medicine on to the market in 1994 under the name of “Zerit.” As a patent holder, the university received a share of the profits.

Soon it became clear that AIDS had become a catastrophe of unimaginable proportions, particularly in Southern Africa. But the cost of the medicine was so high that no relief organisations, let alone the affected persons themselves, could afford it. That is why the organisation Doctors Without Borders asked Yale University in February 2001 to grant it a voluntary licence for d4T to produce and import low-cost generics into South Africa. The University administration declined, pointing to its contractual agreement with BMS to honour the exclusive licence for d4T.

Yale's decision provoked outrage among students and researchers, who complained that a life-saving drug was being withheld from those who needed it for purely commercial reasons. There were signature campaigns, press reports and public debates. In June 2001, the licence holder BMS gave in and signed away its exclusive rights to d4T in Africa. This significantly reduced the costs of AIDS therapy there.

Source: Buko Pharma-Kampagne, med4all: Medizinische Forschung – der Allgemeinheit verpflichtet [Medical research – obligated to the public], No. 1/2009 S. 8/9, short version

FREE LICENSES AND THE COPYLEFT PRINCIPLE

Whoever distributes proprietary software to friends or acquaintances is committing an illegal, punishable act. For, whoever does this is producing a copy, and producing copies is forbidden under copyright law. The law also prohibits any modification of copyrighted software in any form, for to do this, one would need the "source code," the version of the programme that can be understood by people, and not just by machines. However, companies closely guard the source code of their programs and rarely release it. But even if someone managed to obtain the source code and change the software, it would be illegal to distribute it to others; the improved version could only be used for personal purposes.

Richard Stallman, a hacker in the early days of computing, did not understand this situation. He wanted to share his software so that it could be freely copied, modified and shared without restriction. He himself sought to use only software that gave him those freedoms. It was Stallman who coined the term "free software" to describe software that offered all its users the following freedoms:

- ◆ **Freedom 0:** The freedom to run the programme for any purpose (computer scientists have the strange habit of starting to count from 0 rather than 1).
- ◆ **Freedom 1:** The freedom to study how the programme works and to adapt it to one's own needs.
- ◆ **Freedom 2:** The freedom to distribute the programme to others and make copies for them too.
- ◆ **Freedom 3:** The freedom to improve the programme and make these improvements accessible for the benefit of all.

To exercise Freedoms 1 and 3, access to the source code is required. As for Freedom 2 and 3, there are no provisions in copyright law for such acts. Each freedom would require the explicit approval of the original author of the software. To address these problems, Stallman drew up a licence, which he attached to the programmes, that grants all users these four freedoms. No one therefore needs to obtain the author's permission to copy, modify or share; we already have it.

But Stallman quickly realised that the four freedoms were not adequate. Anyone who modifies or expands a programme, and redistributes it, becomes the co-author of the new software programme. This means that users would then have to also obtain this co-author's permission to revise and distribute the amended version. If the new author were to refuse permission, users' freedoms would once again be stymied.

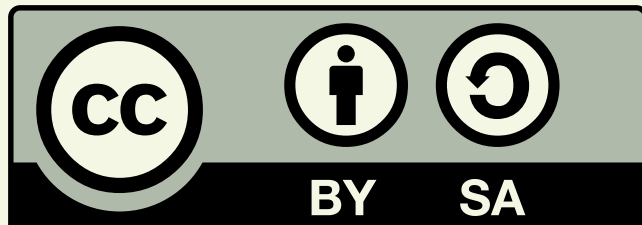
In order to ensure that *all* the versions based on his software remain free, Stallman incorporated a principle that he called "copyleft" into his license – the GNU General Public License, or GPL for short. The copyleft turns the original intention of the copyright on its head. Whilst copyright normally makes no demands of the author and, on the other hand, permits the users virtually nothing, copyleft does exactly the opposite: it allows the users to do a great deal by granting them the four freedoms mentioned above, while at the same time obliging all future authors of derivative works to grant their users the very same rights that they themselves had enjoyed.



The authors are thus given the freedom to change the programme and to publish these changes (Freedom 3), but only on condition that they publish the modified version under GPL again and therefore give users access to the source code, which is needed to make any changes to the programme.

Thus, the freedom provided in the software published under GPL is guaranteed for all times and all future developments.

Creative Commons
"Attribution Share Alike"



Reversing the intentions of copyright law – which is the basis of all free licences – through copyleft licenses has been extremely successful. Today, the GPL is used for some two-thirds of all free software programmes.

What works for software could also make sense for other media such as texts, images, music. That is the idea behind Creative Commons (CC), a project that conceived and developed a whole family of licences for sharing works. Each individual author can select from among six licenses the one that best suits his needs, among other options. He can decide, for example, whether the Copyleft principle (referred to by Creative Commons as "Share Alike"), is important or not, or whether to permit or ban commercial use of his work. Authors also have the option of prohibiting changes to their works through a "No Derivatives" license. As this suggests, not all CC licences grant the "four freedoms" of free software. But allowing the distribution of works for non-commercial use is always permitted, and that is a big step in the right direction.

Recommended literature

Wikipedia articles on Copyleft, Creative Commons, Free Software
GNU General Public License, Richard Stallmann
GNU project: The Definition of Free Software
www.gnu.org/philosophy/free-sw.de.html

FUNDAMENTALS OF A COMMONS-BASED PEER PRODUCTION

What appears to be a weak point of the commons today could prove to be its strength: money plays a subordinate role. Characteristic of the commons is cooperation among people for the growth of shared property, not competition for the accumulation of individual wealth. Generally, monetary incentives in the commons are only marginally important; more important are aspects such as collective use, the opportunity to learn or build a reputation, and social conviviality. In this sense, the sphere of the commons is a “goods-free” one.

What we have here is an economy of sharing and inclusion, not of accumulation and exclusion.

Without such a system of sharing, establishing limits to a growth economy is inconceivable. The commons enables production to occur with lower financial stakes; contributions are generally made out of a sense of community, personal interest in the enterprise or a sense of social solidarity. Just as Wikipedia could not exist if all of its contributors had to be remunerated, so also the nursing services that a dozen older people provide among themselves in a co-housing project would overtax public financial support for nursing.

In other words: whatever is brought into the sphere of the commons – referred to in many places as “social capital” – is, in precise terms, “money-efficient.” Less financial capital and cash exchange is needed per unit of work performed. This enables the commons to function as an economic system without the destructive imperative of constant economic growth.

Since money efficiency in this sense may be regarded as a pillar for a post-growth economy, re-inventing the commons is a prerequisite for a viable economic order in the 21st century.

It is undoubtedly extremely reckless to continue to bank on rising national income. Doing the opposite, that is, pushing for economic stability and restriction on consumption, is more prudent as it were. The reasons for this are well-known: climate chaos, dwindling oil and gas reserves, growing mountains of debt and heightened demands made on available resources in many places in the world. Soon – in many places even today – it is no longer growth but survival at a civilised level that we will be seeking to achieve.

Neither economic practice nor theory is prepared for this new world. They are helpless when faced with the question as to how living conditions can be improved when the pie no longer grows larger. Economic reforms that facilitate progressive or adequate management will require a diverse architecture of stable commons.

American legal scholar Yochai Benkler was among the first to recognise that a production and economic system based on the commons differs significantly from traditional notions of market production. Benkler coined the term “commons-based peer production” to describe this economy. Unlike

production for the market, commons-based peer production is not meant for sale but for direct use. Peer projects have a common objective – to produce software, create music, maintain a garden – with all those involved contributing towards this goal in one or another way. For the most part the goal is not to earn money, but to reap benefits by participating in a community. People contribute because they share the goals of a project and wish it success or simply because they enjoy contributing.

Such commons-based peer production can create new commons and nurture and improve existing ones. Hierarchical command structures are largely unknown to these peer projects. This certainly does not mean that they are unstructured (often there are maintainers and administrators who keep a project on track and decide whether contributions should be integrated or rejected), but no one can dictate to the others what is to be done. Managing these new digital commons is subject to certain rules. These

rules emerge from a consensus among the peers. In the peer-managed economy of the commons, there are no compulsions and no commands. Cooperation between equals is voluntary. Everyone is motivated to show initiative. Maintainers can only try to persuade participants that a certain activity is meaningful. This results in maximum freedom for all those involved.

Yochai Benkler

PHOTO: FLICKR-USER JOI



Commons-based peer production always takes place within communities in which people with common interests or from the same neighbourhood come together. As the case of Linux reveals, these areas and communities can be global in scope. Virtual worlds make it possible for new, territorially independent forms of the community to emerge.

In open-ended processes that are never concluded, the communities develop rules as well as forms of organisation and institutionalisation that best serve their objectives.

The Internet innovation following the dot-com crash of March 2000 shows how innovative and productive a commons-based economy can be. At that time, it was prophesied that technological development in the Net would come to a halt. The Crash meant that capital was lost. Experts of the market economy predicted that the next phase of innovation would be long in coming.

But this was not the case. Instead, innovations for Web 2.0 occurred at break-neck speed. At that point in time when funds were scarce, there was no slowdown in the development of the Internet but, instead, an acceleration. This is not a paradox; rather, it confirms the innovative potential of the commons and of collective forms of peer production.

In the 1970s, there was an emerging sector for renewable energies in California. But start-ups active in this sector were bought up by larger companies, derided as inefficient and incorporated into traditional operating structures. This effectively brought to a halt all investments and innovations for renewable energies and for alternative automotive engines. The reason for this is simple: material production is primarily based on knowledge, concepts, ideas and designs. Whoever acquires control over these is assured of power.

Thirty years ago, a much-needed phase of innovation for renewable energies did not come about because designs were proprietary; only the "owners" could use them. This was a catastrophe for the climate and a catastrophe for mankind.

To combine ecological needs with the human economy, we need freely accessible designs. Mobility, energy supply, communications and the consumer goods of tomorrow need open access to designs.

Although commons-based peer production has developed primarily in the areas of knowledge and software production, its principles can also be applied to the production of material goods. This means:

- ◆ Knowledge and natural resources are commons that in principle must be open to all. Rules regulating their use must guarantee fairness.
- ◆ The production of physical goods must be based on free designs that anyone can further develop and adapt to his/her own needs.
- ◆ Physical production is decentralized and organised close to the local level.
- ◆ Production must be use- and user-oriented: it is production for life!
- ◆ As with free software, the involvement of the participants must take place on the basis of "individual choice" – that is, one decides how and where one wishes to participate. This calls for a high degree of coordination, though it also brings a greater measure of satisfaction.
- ◆ Peer production is based on inclusion, not exclusion. Although there are rules which the communities subject themselves to and which every individual must observe, terms and conditions for involvement are easy. Participation is therefore facilitated.

"It is not so difficult to recognise the problem. We live in a society which obviously assumes that we have a surplus of Nature. So we produce and dispose of our goods accordingly. But this is merely a pseudo-surplus; it actually does not exist. Whilst there is really a surplus in the immaterial world, this is kept artificially enclosed."

MICHEL BAUWENS

The principle underlying involvement here is: I do something for the others and the others do something for me.

While commons are of vital importance, they have become almost invisible in the market economy. Yet the commons economy is likely to surge in the future. Markets, as they exist today in the commodities economy, will play a less significant role in the future, while the commons and the open communities of commoners will become the centre of life. For this, a new understanding of the market and a new understanding of management must evolve, in which the commons are not primarily the object of private acquisition, but are used, preserved and further developed for the benefit of all.

Recommended literature

Yochai Benkler: *The Wealth of Networks*

Yale University Press, New Haven 2006

[http://cyber.law.harvard.edu/](http://cyber.law.harvard.edu/wealth_of_networks)

[wealth_of_networks](http://cyber.law.harvard.edu/wealth_of_networks)

Christian Siefkes: *From Exchange to Contributions*, Berlin 2007.

www.peereconomy.org

IN CONCLUSION: A VISION

We need change and we know the direction. Many are already on their way.

This report shows that the idea of the commons has appeal to a wide spectrum of movements. There in lies its strength.

It allows us to gather together a vast range of practical approaches and projects into a common strategy, without dispensing with the diversity of world-views.

1.

We can turn our energies, institutions and talents directly to the commons and their core: the diversity of life.

2.

We can ask of every project, idea and economic activity whether they do more for communities, for society and the environment than they take from them.

3.

We can reverse the prevailing economic incentives – by setting limits on our behavior and use natural resources in a sustainable manner, while at the same time making lavish use of ideas whose potential are limitless. In this way, we benefit from both.

4.

We can seek out intelligent paths to further the progress for all, rather than merely concentrate on individual advancement.

5.

We can, as a default priority, acknowledge and materially promote those actions that generate, nurture and augment that which is generally available.

6.

We can institutionalize the equitable sharing of the earth's gifts and the collective sharing of past and present achievements.

7.

We can use transparent, participative and consensual decision-making processes, forms of communication and technologies, and improve these for all.

LINKS

GERMAN

[Call of the World Social Forum for the Recovery of the Commons](#)

Five-language Internet page compiled in the wake of the 9th World Social Forum of January 2009 in Bélem do Para (Brazil). The call is an invitation to debate and sign up.

<http://bienscommons.org>

[Commonsblog](#)

Findings from the pasture commons – worldwide!

www.commonsblog.de

[Creative Commons](#)

Develops model licence contracts with the help of which the original authors can also lend their creations some freedom: "Some rights reserved" instead of "All rights reserved".

<http://de.creativecommons.org/index.php>

[GNU](#)

The GNU project was initiated in 1984 to develop a complete, unix-like operating system that constitutes free software. It is based on the Linux kernel.

www.gnu.org/home.de.html

[iRights.info](#)

Are private individuals who violate copyrights criminals? Is anyone who copies a CD or DVD punishable by law? Information available on copyrights in the digital world provides orientation.

www.irights.info/index.php?id=58

[Keimform.de](#)

The search for the new in the old: the collective blog on emancipatory projects, themes, theories, detailed discussions on the commons-based economy.

www.keimform.de

[The Max Planck Institute for Research on Community Assets](#)

[www.mpg.de/instituteProjekteEinrichtungen/institutsauswahl/
recht _ gemeinschaftsgueter/index.html](http://www.mpg.de/instituteProjekteEinrichtungen/institutsauswahl/recht_gemeinschaftsgueter/index.html)

LINKS

ENGLISH

[Center for Genetics and Society](#)

Non-governmental organisations devoted to the responsible management of the human genetic pool.

<http://geneticsandsociety.org>

[Barcelona Charter for Innovation, Creativity and Access to Knowledge](#)

Statements of numerous international “commoners” against a retrograde net policy and for a commons-based cultural policy.

<http://fcforum.net>

[ETC Group](#)

Non-governmental organisation, Canada, Mexico and Great Britain. Research, networking, lobbying for human rights, sustainable development of cultural and biological diversity. A critical appraisal of new technologies.

www.etcgroup.org/en

[Free Software Foundation Europe](#)

Foundation for the promotion of free software in Europe.

www.fsfeurope.org

[IASC](#)

International Association for the Study of the Commons.

www.indiana.edu/~iascp

[International Journal on the Commons](#)

Science journal to promote a better understanding of the commons and their management. An initiative of the IASC. All the articles are available online.

www.thecommonsjournal.org/index.php/ijc

[Knowledge Ecology International \(KEI\)](#)

Non-governmental organisation, USA; research, publicity and monitoring or access to knowledge and technology in medicine.

www.keionline.org

[On the Commons](#)

Multi-faceted, interdisciplinary blog covering all aspects of the commons in politics, business and day-to-day living.

www.onthecommons.org

[P2P Foundation](#)

Website on peer-to-peer technology, peer-to-peer production and peer-to-peer society.

[www.p2pfoundation.net/The _ Foundation _ for _ P2P _ Alternatives](http://www.p2pfoundation.net/The_Foundation_for_P2P_Alternatives)

THE CONTRIBUTORS

SILKE HELFRICH

Studied Roman languages – French and Portuguese – in Leipzig till 1989. Worked in the development policy area from the beginning of the '90s. Headed the Heinrich Böll Foundation Office for Central America, Mexico, Cuba between 1999 and 2007. Presently lives and works as a freelance writer in Jena and runs a German blog on the commons: www.commonsblog.de

"The critical examination of the commons is a key to understanding social conditions. Every society must at any point of time define this term for itself."

PROF. DR. RAINER KUHLEN

Focal areas of research and teaching: information retrieval, information market, information ethics, information politics and information law; collaborative knowledge management in e-learning, commons theories. Chair for information science in the University of Constance since 1980; member of the technical committee for "Communication and Information" of the German UNESCO Commission (DUK); German UNESCO Chair in Communications (ORBICOM); Chairman of the Association Net-ics Regis. Ltd. (Information ethics in the Net); spokesman of the Action Group on "Copyright for Education and Science"; appraiser for various Bundestag committees and Study Commissions; member of numerous Advisory Councils/Commissions in Germany (for the Federal Ministry for Education and Research and the German Research Foundation), Austria, Switzerland and the EU.

"Recognising the social, political and economic importance of the commons raises the debate of ecology and sustainability to a new, future-oriented level."

PROF. DR. WOLFGANG SACHS

Studied theology, sociology and history. Since 1993, researcher at the Wuppertal Institute for the Climate, Environment and Energy GmbH. Guest lecturer at the Schumacher College, England and Honorary Professor at the University of Kassel. Member of the Club of Rome. Numerous publications in Germany and abroad on the environment, globalisation, new models of affluence and, more recently, lead contributor to the Wuppertal Institute's study, *Zukunftsfähiges Deutschland in einer globalisierten Welt*, Frankfurt 2008, published by BUND, seed and Brot für die Welt.

"What should we call the commons in German? Gemeingüter? Allmende? Gemeinheit? Where there's no name, there's no perception – that's the tragedy of the commons in the German-speaking world."

DR. CHRISTIAN SIEFKES

Studied informatics and philosophy. Lives as a freelance software developer and writer in Berlin. Co-author of the collective blog keimform.de on the emancipation potential of free software and other forms of the commons economy; among his publications is: *Beitagen statt tauschen*, Neu Ulm 2008.

"A commons-based mode of production has the potential of surmounting the basic limitations and problems of modern society, without undermining its positive achievements in the process."

They are the great variables. And yet all of us live off them. It is primarily through them that our community exists. We are speaking here of the commons. Of air and water, knowledge, software and social spheres. And of many other things that enable us to live our day-to-day lives and pursue economic activity. Yet many of these commons are at risk – they are taken away from the community, commercialised, irreparably damaged. They should instead be nurtured and expanded.

We need to create a new awareness for the significance of these “common assets.” For without them, there can be no prosperity or well-being. The commons need people who campaign for them, feel responsible for them. The manifold problems of the present could be solved if we focus all the energies and creativity that we possess on that which supports our wealth, which works and helps man to develop his potential. This report seeks to draw public attention to these aspects as well as to “commons-based peer production.”