The Commons of the Future[1]

Building Blocks for a Commons-based Society

By Christian Siefkes

The Commons of the Past

In many times and in many areas, production was organized around a *pool of commons*—resources that were jointly used and managed by a community of people, according to some community-defined rules. In many societies, water, air, forests and land have traditionally been "in the commons." They were managed and used by larger or smaller groups of people, but they could never become private property in the modern sense of the word, with an extensive bundle of exclusive property rights granted to the property owner (cf. [On the Commons 2006]).

To give but one example, large parts of European agriculture were organized around a system of *open fields* during the Middle Ages. Each village had several large unfenced fields that were farmed by the families of the village. Each family was randomly allocated several stripes of fields to farm for their own usage; each family got stripes in different areas and the random allocation process was regularly repeated to avoid families ending up with only god or only bad land. The heavy plows and the oxen pulling them were also often shared by several families; and the livestock of all families grazed on common pasture lands (cf. [Hepburn 2005], [Wikipedia: Open Field System]).

Contrary to the myth spread by Garrett Hardin in his "Tragedy of the Commons" article [Hardin 1968], commons were not "anything goes" areas which anybody could use and abuse at will. Rather, there were community-defined rules stipulating how a commons could be used, protecting it from overuse, privatization and other forms of damage. The eventual demise of commons-based systems was due to a systematic process of "enclosure": of driving away the villagers from the commons and privatizing the formerly common resources. The commons did not collapse, they were "stolen," as common sentiment at that time expressed it (cf. [Hepburn 2005], [Wikipedia: Enclosure]).

The Commons of the Present

In many parts of the world, such common resources are still an essential basis of society. Additionally, several new communities which base their practice on the shared goal of creating and preserving a commons have emerged. The *free software community* has created a commons of hundreds of thousands of software programs that anyone can use, adapt, and pass on to others (in original or adapted form), as long as they comply with the rules defined for free software. These rules mainly serve a twofold goal: they protect the creators of the commons (by restricting/excluding warranty and protecting against misattribution) and they protect the commons themselves (from being privatized). There are two forms of protecting the commons (the created software) against privatization (enclosure): in the weak form, free software is governed by a *license* which ensures that the software will remain in the commons forever (even if the creator would like to privatize it again), but which doesn't protect *derived works* created by modifying the original software. The strong form, called *copyleft,* extends this protection: it postulates that any derived works must be licensed in the same way as the original work (if they are published at all), thus ensuring that all derived

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works will become part of the commons, too. The weak form of protecting thus ensures, at least, that the commons can never shrink, while the strong form actively encourages its growth.

The free software community, which sprang up in the 1980s, was complemented in the 1990s and early 2000s by a *free/open content community* setting out to create a commons of *content* (text, music, movies, and other media). So far, the most impressive outcome of this community has been the *Wikipedia,* "the free encyclopedia that anyone can edit," whose English edition now contains more that 2 million articles. Just like the free software community, the free content community knows a strong and a weak form of protecting the commons they create, often using the *Creative Commons* family of licenses to do so.

There are many related communities sharing and managing a self-organized commons in a similar fashion. The *open access community* is turning scientific knowledge back into a commons (as it traditionally had been), by encouraging the free sharing of scientific publications and of the data required for and obtained by scientific experiments. *Wireless community networks* are self-organized computer networks that provide open access points to the Internet and allow free data transfer to other computers. *Community gardens* are small pieces of self-managed common land which have emerged in many places around the world, often in urban environments, providing a connection to nature and a sense of community to the people who cultivate or visit them. And the *BookCrossing* community is passing books that you no longer need on to others, based on the idea that books are meant to be read, not to sit uselessly in shelves. These are just a few examples of the phenomenon for which Yochai Benkler [2006] has coined the term *commons-based peer production* (though the last example is more about distribution than about production). Rowe [2008] gives a nice little overview over both the commons of the past and of the present and the ways in which they are connected.

The Commons of the Future

Are these new commons-based communities just a fad, or are they indicators of a serious new trend? Will there, maybe, even be an economic paradigm shift—will future production increasingly take place around a jointly organized and jointly managed commons, rather than around the exchange of private property on the market? I believe that we can indeed expect such a paradigm shift [Siefkes 2007].

If such a future commons-based economy emerges, it will probably resemble the commons of the present more than the commons of the past: it will often use the Internet for global cooperation and coordination; it will rely on the powers of automation and modern technology to make production easier and more versatile. There won't be oxen pulling plows.

Two traits which the commons of the past and of the present have in common are that commons need *communities* (without sufficiently strong communities of people willing to create, maintain, and protect them, all commons would or did fall into disarray or become privatized) and that these communities make their own *rules* to protect and strengthen the commons (the conventions of the open field system and the licenses of free software are examples of such rules). Apparently, these are necessary preconditions for commons to flourish. *Any future commons-based society will thus likewise be a community of people making up their own rules for creating, maintaining, and handling the commons.*

The characteristic trait of such a society will be that *production will be based on commons*. If we take this seriously, it means that the resources required for production and the goods that are produced will go into the *pool of commons,* and that the goods which people consume or use will come out of it. Such a pool of commons won't emerge by itself, it needs a community of people who maintain and support it, as all commons do. Production

around a pool of commons thus means that *people enter a joint agreement to help each other produce what each of them needs*. It becomes their joint responsibility to preserve and protect the common resources of the Earth that make production possible, and to create and maintain a pool of common means of production and goods that is sufficiently large and versatile to provide for everyone's needs and wishes.

The core task of a commons community will therefore be to find out how best to handle this joint responsibility—to find out which rules and agreements work best to ensure that the pool of commons can indeed play its intended role. In my book [Siefkes 2007], I speculate about which specific rules such a community might give itself in order to do so. My point is *not* to predict the actual rules which such a community will follow. These rules will certainly vary over different areas and different times—the respective communities will find out which rules work for them, as the commons communities of the past and present have done. My point is to show that it is *possible* to successfully organize the commons-based production of everything, not just of free software and the Wikipedia.

Which general principles might we expect of such an agreement to handle the joint production of everything? While my book describes and motivates details, the following is a very high-level overview of the core ideas:

> *Everyone can give as they like*. That's what we already see in free software and related communities: people self-select to do things which they consider important or which they like to do—incidentally, the things which people like to do most often are also the things they do *best*. Of course, this does not mean that every contribution will be accepted (as it doesn't in free software): just because you fancy that you could be a doctor doesn't mean that people will trust you to operate them.

> *Taking from the commons means taking something as possession* (something that can be used), *not as property* (something that can be sold and commercialized at will). The difference between *possession* and *property* is simple to explain: the apartment which I have rented is in my possession (I'm the one who uses it), but it is the property of my landlord or -lady (she's the one who owns it and has the right to sell it). Commons can often become possession, but never property. For example, fields in the open field system become the temporary possession of the family who got the right to farm them. Likewise, anybody can take free software into their possession (by downloading and using it), but nobody (not even the initial creators) holds full property rights over them (the creators cannot exclusively sell or license the software to a company, since they already donated it to the commons).

> If goods can become possession, but not property, this also changes the purposes of production. In capitalism, production usually takes place for *profit,* but profit requires property. Where there is no property, production is therefore driven by other motives: people help to produce something because they want to have it, they self-select themselves to do tasks which they enjoy doing, or they support production in order to give something back to the community. There are ample reasons why production takes place even where there is no profit.

> *Everyone can take commons into possession, as long as they don't take them away from others*. That's what we see from the commons of the present: everybody can freely take software, content, and other kinds of information without having to give anything back, since by taking them you don't take them *away* from others: everybody else can just make another copy of the software and use it, too. This works for everything that can be copied at practically zero cost.

> *If taking would mean taking away, the best way of solving this problem is to produce enough to satisfy everybody's wishes*. If things cannot be copied freely, taking needs social agreements. Say there is only one bicycle left in the commons, but there are

two people who would like to take it. Neither of them can just take it at will, since doing so would take it away from the other person (she would deny the other one the possibility of taking it). Since things such as bicycles are *produced,* this is not necessarily a problem: it might be possible to produce enough of a good (two bicycles, in this case) in order to satisfy everyone's wishes. Doing so is an organizational challenge for the commons community: it has to arrange production so as to ensure that there are enough goods for those who want them, thus avoiding that taking becomes taking away.

Let's have a look at what this can mean in practice. Organizing production requires *effort* (time which people spent to actually produce the bicycles and other goods needed), and the community must therefore find a way to distribute this effort. It is possible that effort will distribute itself more or less spontaneously, if everybody self-selects themselves for the tasks they like do and does as much of them as they deem appropriate. If and when this isn't sufficient to distribute all effort, more explicit agreements will be necessary, say by coupling giving to and taking from the commons. In my book I mainly discuss two ways of doing so: either distributing effort evenly among participants (*flatrate* model: everyone contributes about the same amount of effort, regardless of how much they take) or else distributing it roughly *proportionally* to the effort required to satisfy everyone's wishes ("the more you want, the more you have to give"). Some further details and possible modifications follow automatically from the logic of commons-based production (for example that those who cannot contribute effort won't have to, since the goal of effort sharing is to ensure that enough is produced to satisfy people's wishes, not to exclude anybody). There may be other ways to share effort depending on the character of the resources at stake and the respective communities.

When effort is distributed, there will probably be a few tasks that nobody (or not enough people) wants to do, say because they are annoying, dirty, dangerous, or just plain boring. The commons community will have to find a way to distribute such tasks as well. One way of doing so is to "weight them higher," i.e. to count short times of doing such a task as equivalent to longer times of doing other tasks. If I have to decide whether I would rather spent twenty hours writing software or else five hours removing garbage I might feel more inclined to choose the latter task, even if I consider it less pleasant.

The second best way is to distribute limited goods in a fair manner. If it's not possible to produce enough of a good to satisfy all demands, the commons community will need ways of deciding who takes precedence. In my book, I discuss *auctioning* as a possible way to do so: those who are ready to contribute most *effort* in order to get the limited good will get it. By doing so, they will not only get the good they like to have, but they will also alleviate the task of co-producing the commons for everyone else: since the overall effort required for production stays the same, everyone else will have to contribute slightly less. Auctioning can also be used to allocate natural resources that aren't available in sufficient quantity for everyone who wants to use them, while other natural resources would be available for free (but only for *using* them, not for *using* them *up*).

Other solutions to the priority problem are possible, too. A community could, for example, try to satisfy urgent demands first, or it could trust the people involved to figure out among themselves who should take precedence. The commons communities will have to find out which approach works best for them—quite likely they will end up using a combination of several approaches.

Cooperation will be organized by area and by interest, and units of cooperation will nest and overlap as appropriate. There will probably be lots of *commons-based*

communities around the world, each of them organized by and for the people living in a certain area and managing the commons that occur in that area. These regional communities will cooperate with each other as reasonable to handle activities that can better be organized at a larger scale, and to manage and share common resources that are unevenly distributed. Cooperation in regional communities will be complemented by cooperation in *projects* setting out to produce some specific good, where each project comprises the people interested in producing this good and willing to cooperate with each other (this generalizes the language use of the free software community: a "free software project" is the group of people designing, implementing, and testing a specific free software program). Based on the experiences of the past and present, we can assume that each regional community and each project will find the rules and structures that suit them most, and that communities and projects will cooperate and join forces when it makes sense for them to do so.

Production will take place in projects of people who work together on an equal footing (as peers). When Benkler talks about "commons-based *peer* production," he means that there are no command structures in the projects he describes—nobody can order others to do something, and nobody is forced to obey others. This does not mean that there are no structures—on the contrary, there are often maintainers who steer the course of a project and decide, for example, which contributions to accept and which to refuse. But while maintainers can prohibit participants to do things that they consider harmful to the project (throwing them out if they don't comply), they can never order anybody to do anything they do not want to do—all they can do is try to *convince* people that doing something makes sense. Moreover, nobody is forced to accept the existing structures as they are. If participants of a project are unhappy about some aspects of the project they can try to convince the others to change them. If that fails, they can still *fork* the project: they can break away from the others and do their own thing.

Commons-based societies worked successfully for centuries, until they were destroyed by the enclosure process accompanying the advent of capitalism—a process which is still going on in parts of the world. At the same time, capitalism has also produced the modern technologies which have made a new generation of commons possible. The renaissance of the commons is in full swing, and there is no reason why it should loose its momentum any time soon. A future commons-based society—*commonism*, as Nick Dyer-Witheford [2007] proposes to call it—might still be a few generations away, but the tendency is clear.

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