

capability, rather than individual best efforts, that will achieve the transformation in patterns of *land use and movement—the *localisation—that will become the foundation of a resilient future.¹⁴¹

*Common Purpose.

COMMON PURPOSE. Common purpose is a shared intention to achieve a shared goal, where collective aims are advanced by the individual purpose, and individual aims are advanced by the collective purpose.

*Common Capability, Emergence, Presence, TEQs (Tradable Energy Quotas).

COMMONS, THE. A common-pool resource, such as *land, or a marine fishery, or a *community, whose benefits are shared amongst the people who use it or live in it.

Private property rights are, by comparison, straightforward: the owner has (or can reasonably be presumed to have) a sense of responsibility towards the property he or she owns, and a desire for its continuity. He or she will stand to gain from its improvement over the long term, or lose if it deteriorates. There are many *exceptions to this, but the record of care for land where an individual has autonomy—as in the case of a family farm—is good. In fact it does not have to be literal ownership which is the issue here; what matters is the freedom to manage it as the user thinks fit, the *expectation of being able to go on doing so for a long time to come, and the belief that there is some point to the exercise, since he knows for (almost) sure that, when the fruits of harvest come in, no one is going to show up with a wagon, claim possession of them and carry them off.

In contrast with that, there is common ownership. There is no limit to the amount of work a commoner in this sense can put into the shared asset; the difficulty is that there is no guarantee that he or she will stand to benefit from it. This is the “Tragedy of the Commons”. Here is how it works (or, rather, doesn’t work). Imagine a group of grazers on the local commons, which is already well-stocked with their sheep. It could support more but, with each additional sheep,

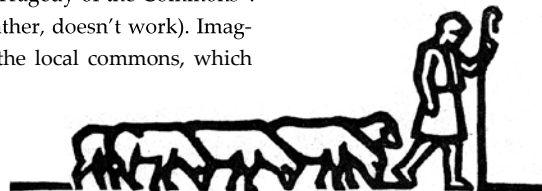
there is additional damage to the grass and a decline in the extra yield that the extra sheep will produce for its owner. There is a decreasing *marginal* return, but that might be thought tolerable so long as, with each additional sheep, the commons’ total yield is greater. As more sheep are added, however, there comes a point at which, with the extra sheep, the total yield itself will shrink: there is decreasing *average* return. The commons has reached the point of maximum yield, and is poised to fall if any further demands are made on it.

And yet, one of the grazers (Gian) now adds one more sheep. The extra sheep reduces the total yield, but it is hard to do anything about it, because Gian gets the whole of the benefit of the extra sheep, yet the damage it causes is shared out among all the grazers. So, here we have a problem. The individual (Gian) is clearly better off, even though all the other grazers are worse off. But if it is rational for Gian as an individual to add his extra sheep, it will be rational for everybody else, so long as they see the matter just from their own individual point of view, and don’t talk to each other enough. The result is that, with tragic inevitability, the commons will be overgrazed. If every grazer tries to compensate for his subsequent losses by adding more sheep of his own, it will be destroyed.

It was the ecologist Garrett Hardin who called this the Tragedy of the Commons, and the conclusion he drew is that common resources cannot be sustained in good health by the people who use them and benefit from them unless they are protected from exploitation by an overriding authority. If they are unprotected, every individual will be able to extract what he or she can from it until it is no use to anybody.¹⁴²

The controlling authority whose job it would be to stop this happening is in effect the “Leviathan” proposed by Thomas Hobbes (1588–1679) who, following the troubles of the English Civil War, concluded that an essential condition for an orderly society is an authoritarian sovereign,

with power limited only by a *contract to keep the peace and by his responsibility to God. It is a view which (with modifications) has remained influential. And so has



Hardin's approach to understanding the treatment of common assets, with its tragic *implications of an inevitable decline which only powerful authority can avert.¹⁴³

What is wrong with it? Well, often there is nothing wrong with it. It certainly applies in the case of fisheries in our own time, a clear tragedy of the marine commons. And yet, it tells only part of the story—it applies just to *open access commons. This is the situation where there is free access, where anyone who feels like using the commons (fishers, grazers, etc) simply goes ahead and uses it. Commoners in this situation will indeed typically treat the commons in ways which work just for themselves, but which destroy it when everyone else does the same thing.

If the commons are closed and *bounded, however, things are different. There is now some point in *protecting it because the commoners can be confident that its wealth is not going to be stolen or destroyed by others who have no *interest in its preservation. The *closed access enables collective responsibility and awakens *common purpose. The boundedness keeps the scale small enough for the people in it to have eye contact with each other, to sustain *trust, and to have a sense of individual and collective confidence: I can make a difference; we can make it work.¹⁴⁴

Now the commoners can prevent overgrazing: they can prevent both overuse by existing grazers and additional demands by new arrivals. The scope of *responsibility is clearly defined; there is an implicit or explicit contract which requires members to comply with the conditions of membership. As the naturalist Richard Mabey writes, Hardin “clearly knew nothing of the commons system in England, or for that matter in peasant societies throughout the world, where rootedness and neighbourliness made self-regulation second nature.”¹⁴⁵

Some twenty years after publishing his paper, Hardin acknowledged that the ‘Tragedy of the Commons’ is a problem that does not apply to self-managing closed-access commons and, seemingly without realising it, he stumbled on the fundamental requirement of a responsibly-managed commons: its *scale has to be limited (and the critical maximum size here is around 150—the largest *group size capable of establishing a network of *reciprocity and cooperation among people who know each other's names):

Perhaps we should say a community below 150 really is managed—managed by conscience. [But such] scale effect rules out the unmanaged commons as an important political possibility in the modern world.¹⁴⁶

By building up “nested” *hierarchies of groups, each consisting of not more than 150, much larger commons can be sustained.

In summary, then: if the commons are closed in the sense of being able to limit the demands that are being made on them—and if they have dealt with the size problem in a way which enables that to happen—then they have the fundamental requirements for effective self-management. Indeed, once these two related conditions are recognised, it turns out that the problem is in a sense the *opposite* way round from Hardin's original analysis: without any network of *reciprocal obligations to restrain it, it is all too likely that a controlling authority—Leviathan—would plunder and destroy the commons which it was there to protect; a case of the fox set to guard the chickens.¹⁴⁷

The *authority structure that works is the bottom-up one, where the community of users takes responsibility for the commons. In these circumstances, they can effectively limit the demands made on it to a level that will sustain it as an asset. From the perspective of history—though not in our time, with the present mismanagement of the ocean a tragic and exact illustration of the problem Hardin pointed out—closed access is the normal arrangement; open access is an *anomaly.

The Managed Commons: conditions for successful management

Here is the set of conditions needed for a self-regulating commons, developed by the scholar who has done most to advance our understanding of them, Elinor Ostrom. There are eighteen. Those two primary principles, above—closed access and a manageable size—are really places to start and they are implicit throughout, but to keep Ostrom's sequence intact, they are listed, respectively, as conditions 4 and 11.

The whole set is summarised here in terms a little less technical than Ostrom's—but for readers who would like to read each headline definition in exactly the language of the maestro herself, they are set out in the endnotes.¹⁴⁸

THE TASK

This first group of four conditions tells us something about the commons itself (also termed the “resource”, or “common-pool resource”), and about what the task of managing it and using it involves. Not every productive natural ecology has the potential to be a commons. Here are Ostrom’s four conditions in this group:

1. *It is worth the attempt.* The task must be seen as realistic in that the common resource has not deteriorated so far that it can never be brought back; commoners recognise that, if restored and/or maintained, it will be a useful asset.¹⁴⁹
Like many of the conditions for a feasible commons, this seems no more than common sense. People won’t set about building a collective asset if all around them there is such devastation that they see no point in trying, nor if the amount of work and the time it will take to get results are too great for them to see any benefit. Nor—at the other extreme—will they do so if, on the evidence of the present, they don’t see a problem that needs fixing (but sometimes enlightened *leadership can change such perceptions).¹⁵⁰
2. *Good information.* Management of the commons needs quick and easy access to information on its condition.¹⁵¹

This is *feedback—but Ostrom prefers to write of “indicators”, and there is a reason for this. Commons may be large and complex, and keeping track of their condition now, and of signs of problems to come, can be difficult (for a story of indicators on the health of fishing-grounds—and the informal information that may provide the best indicators—see *Harmless Lunatic).¹⁵²

Here are two relevant aspects of feedback. First, we have the idea of “adaptive management”, which means learning-as-you-go. It sees the task of managing a commons as a series of experiments which will deal out success and failure in uncertain ways, but from which at least you can learn. And that is not a process that is ever really completed because, on the strength of what you have learned, you are likely to try something new, so you are back into uncertainty again. In other words, your approach evolves (*Kaizen).¹⁵³

Secondly, Ostrom is emphatic about the connection between good understanding of a resource and—well, *conversation. A strongly-motivated group in stable conditions, with the opportunity for trial and error, and a lot of interactions between its members, “will tend to discover those strategies that an omniscient individual would have selected”. Here is an information source not to be neglected: with the benefit of conversation and persistence there is a reasonable chance of being able to work out what to do, and how to do it—more or less perfectly.¹⁵⁴

3. **Flow and predictability.* The commoners will need a roughly predictable flow of benefits (rather than the occasional windfall).¹⁵⁵

Flow (one of the five rules of *lean thinking), lies at the heart of there being any possibility of making sense of the commons. Here we have some benign regularity, where quite small variations show up clearly; the feedback coming from the system is intelligible. This is the “quiet life” condition at the heart of an effective commons, and its absence has tragic potential—turbulent conditions and constant change may actually stop you perceiving or taking the action needed to do anything about them: turbulence can be self-reinforcing.

But, of course, the quiet life too has its dangers, for if change happens slowly you may not notice it until it has reached the stage when the turbulence returns. Ostrom cites the example of *population,

When the resource base itself grows very slowly, population growth may exceed the carrying capacity before participants have achieved a common understanding of the problem they face.¹⁵⁶

4. *Manageable *scale.* The resource needs to be small enough for those *responsible for it to be aware of the local detail.¹⁵⁷

In *Lean Logic* (as in the introduction to this entry and in condition 18 below), scale is mainly about the numbers of people involved, but here it is about the physical size of the commons. If the actual area involved is very large, it is impossible to sustain closed access: you cannot *monitor the boundaries,

nor can you really know what is going on within the area itself. There are two main responses to this problem: reduce the scale to a level that can be monitored, or subdivide it into smaller (“nested”) areas within the authority of a larger group charged by those below it with responsibility for the whole.¹⁵⁸

THE PEOPLE

The second set of conditions is about the commoners—or would-be commoners—themselves:

5. **Intention*. The commoners need to believe that the success of the enterprise will bring results that they want. They must know what they want, and know that if they do not take the necessary action themselves, no one else is going to do it for them.¹⁵⁹
6. *Common understanding*. There must be agreement in the community about the nature of the task and about the contribution that their actions can make towards it.¹⁶⁰
This is close to **Lean Means*. Commoners agree on what needs to be done—on the priorities, and on what can be left out. As Ostrom emphasises, shared understanding is essential—it is hard to see how a commons could exist without it. If the members of a commons “do not share a common understanding of how complex resource systems operate, they will find it extremely difficult to agree on future joint strategies”.¹⁶¹
7. *The long view*. Agreement is needed that it is worth taking action now to **protect* the commons for the future, and that this is a lifetime commitment, not a short-term project.¹⁶²

The long view makes the difference between mining a common resource as an asset with little or no future value, and conserving it as **capital*. This principle is central to *Lean Logic*, and it is the **ethic* shared by ecologies of all kinds except those which, like the human ecology, have briefly broken out of their ecological limits.¹⁶³

The problem is that if natural ecological constraints (which, in effect, give space for no option other than taking the long view) are for some reason not in place, the ethic needed to stand in for them is fragile. If the commoners are entirely

preoccupied with present troubles, or if they feel awash with wealth and see plenty more natural assets to be exploited, or if current standards and norms of behaviour are too remote from any sense of foresight, or if they cannot prevent others from taking or destroying their commons at will, or if they simply spend too much time away from home—then the long-term view will fade. This is **demoralisation*. The survival of the commons depends on *les choses intérieures*—matters of the soul and **spirit*.¹⁶⁴

8. **Trust and *reciprocity*. Members of the community need to feel able to trust one another, and to sustain links of cooperation.¹⁶⁵

Commons are cooperative enterprises; they therefore depend on trust, on reciprocity, and on **social capital*. The **market economy* can get by, for a time, with a gravely-weakened culture and social capital, but the commons cannot. If you really want to save the planet and to give human society a decent chance of living on it, the first thing you should do is to join a choir. Or have dancing lessons, or both. That is not quite the **hyperbole* it seems: in enduring communities, the thing which **defines* and distinguishes them is their culture of **dance*, music, **story* and **tradition*—so intertwined with trust that it is hard to tell cause from effect. As Leigh Anderson and colleagues, write,

Social capital can be conceived of as an asset that *arises from and enables* the use of networks existing in a community in such a way that norms of trust and reciprocity are promoted.¹⁶⁶

The making and sustaining of trust, reciprocity and social capital depends on relatively small-scale community—it may be nested, layer by layer, within a larger social order, but it is the small local scale that is critical, as Ostrom reminds us,

... individuals repeatedly communicate and interact with one another in a localised physical setting. Thus it is possible that they can learn whom to trust, what effects their actions will have on each other and on the common-pool resource, and how to organise themselves to gain

benefits and avoid harm. When individuals have lived in such situations for a substantial time and have developed shared norms and patterns of reciprocity, they possess social capital with which they can build institutional arrangements.¹⁶⁷

9. *Autonomy*. The community needs to be able to organise itself and decide as it thinks fit, making its own rules, with confidence that they won't be countermanded by external authorities.¹⁶⁸
There is closed access here, as well as *pull, in the sense of responsiveness of circumstances and needs as they arise. The commoners can decide for themselves.¹⁶⁹
10. *Competence*. At least some members of the community have organisation and *leadership skills.¹⁷⁰
Ostrom emphasises the need for commoners to bring some experience to the task. She acknowledges the value of learning by doing, but recognises that if too many of the mistakes of inexperience are made at the beginning, the moment may pass at which a commons can be sustained or saved. Past experience, she insists, opens up the possibility of making real decisions, and reaching agreement on them.¹⁷¹
That is, commoners need to know what they are doing. The experience of some two centuries of market economy consumerism and the *education designed around it is no preparation for this. Deskilled and in many cases demoralised, the would-be commoners of the future have an urgent *incentive to build the needed experience rapidly, with limited time for trial-and-error. The initiatives—the blessed unrest—of our time, such as the *Transition movement, fall short as preparation for what is to come, but they are essential, and they are learning as they go.¹⁷²

RULES FOR MAKING IT WORK (DESIGN PRINCIPLES)

This third and final set of principles is about the way the commons is managed, and how its rules are drawn up and maintained:

11. *Clearly-defined *boundaries*. Both the boundaries of the resource and the membership of the community responsible for it must be well-defined.¹⁷³

Here is *closed access, that crucial condition of the self-regulating commons, strongly restated. As Ostrom writes, definition of boundaries,

... ensures that appropriators can clearly identify individuals who do not have rights and take action against them.¹⁷⁴

12. *Rules: local and specific*. Rules and decisions must be based on actual local circumstances rather than on theoretical principles and assumptions.¹⁷⁵
Here again is the flexibility contained in *pull. Ostrom calls it “congruence”, a close match between benefits and obligations. Costs and benefits are fairly balanced so that, for example, farms that receive large amounts of water from the irrigation system bear a corresponding share of the costs. The rules take into account local circumstances, such as soils, slope and the nature of the crops being grown.¹⁷⁶
13. *Participation*. Members of the community must be able to develop their own initiatives and decide on their own rules.¹⁷⁷
Here is *presence, with its characteristic link between the rules that a community makes for itself and its willingness to comply with them.¹⁷⁸
14. **Monitoring*. Compliance with the rules should be monitored by people who are themselves members of the commons.¹⁷⁹
15. *Sanctions*. Sanctions should be appropriate; though not severe at first, they may become so later.¹⁸⁰
If there are rules for the management of the commons, it is essential that they should be monitored. If members of the commons break them, that must be noticed and sanctions should be applied. The sanctions themselves do not need to be severe—their task is to act as a reminder that the rules exist and that breaking them is unlikely to be a good idea in the long term. But that is consistent, too, with graduated sanctions: for repeated breaches of the rules, it is reasonable for penalties to be severe enough to make repeat offences an unattractive option.¹⁸¹
16. *Conflict resolution mechanisms*. There should be quick and effective access to the resolution of conflict between members of the community, and between communities.¹⁸²

Communities can be destroyed by sustained *conflict, from within or without. The management of the commons is full of the risk of conflict, of misunderstanding, and accidental, half-accidental, or intentional failure to stand by reciprocal obligations. Even *character—a necessary condition for dealing with this—has its limits. Disputes are unavoidable, so some means of arbitrating between commoners will need to be integral to the design. As Ostrom writes, “It is difficult to imagine how any complex system of rules could be maintained over time without such mechanisms.”¹⁸³

17. *Rights to organise.* The rights of communities to devise their own institutions should be free of challenge from external government authorities.¹⁸⁴

Ostrom is pointing here to a recurring problem, where authorities—such as the state government—do not recognise the rights of the commons to organise and self-regulate. This right needs to be established early on, before presenting the government with a done deal. Ostrom describes cases of long-term trouble when the needed recognition by the state government has not been in place.¹⁸⁵

18. *Nested enterprises.* The commons should be organised from the bottom up, with local groups joining together to represent larger areas, and these areas joining upwards in a nested *hierarchy to represent the interests of a region.¹⁸⁶

In large commons with many participants, nested representation allows commoners to take on problems at all levels, starting with the small-scale local detail. Large commons which have formed to manage irrigation systems—with 10,000 or more members covering very large areas—may be four layers deep, but, as Ostrom explains, the key to effective organisation at this level is to start with the smaller units, and to build on that foundation.¹⁸⁷ She illustrates this with water-management commons—formed with the aim of (amongst other things) ending the uncontrolled pumping of irreplaceable reserves of groundwater. From local beginnings, these evolved successfully into large-scale common enterprises, and she contrasts this with an attempt to organise a similar system in the Mojave Desert from the top down. The result of that was:

acrimonious political conflict, including several recall elections, front-page stories in the local papers that pushed aside stories on the Watergate scandal [and] no action . . . to limit groundwater pumping.¹⁸⁸

But, once foundations in the form of *small-scale local institutions, their social capital and their self-recognition as a community have been laid, it becomes practical to build more complex institutional arrangements. The nesting of each level of organisation gives higher levels legitimacy in representing the smaller, local groups.¹⁸⁹

And yet—this bottom-up principle depends, in turn, on top-down recognition and encouragement. Ton Schouten and Patrick Moriarty, whose book *Community Water, Community Management*, is an essential complement to Ostrom’s work, explore the practice of the commons, as applied to local water management, and caution that:

Community management builds from the bottom up, while decentralisation typically comes from the top down. Where they meet is somewhere in the middle, typically around the level of district or municipality government. Both community management and decentralisation will still take a long time to mature, but they cannot do without each other.¹⁹⁰

The commons in context

The commons is an important idea, not least because many of its properties are intrinsic to community. At the same time, it is attractive, implying that here is a way of being sensible—a route to recovery from the limitations of the market. In fact, as Ostrom points out, commons are a generic solution to a particular kind of problem, and she helps us put them into context with the other means of working together.¹⁹¹

She draws our attention to two variables. The first, as we have seen, is *subtractability*. This is the property of a good which is depleted by consumption: if Fred consumes a subtractable good, or uses it, or owns it, that means that Dan cannot do likewise: Fred’s consumption has (even if only slightly) reduced Dan’s options. You might think this applies to all goods, but

in fact it doesn't. Unless one reaches for some rather extreme assumptions, goods such as these are not subtractable: sunlight, joy, parks, pavements, bridges, *law and order, *carnivals, love, commas. Clearly, the buying-and-selling routines of the market economy apply more comfortably to goods that are subtractable than to goods that are not.

The second concept is the *difficulty of excluding beneficiaries*. In most cases, that is not difficult: if you don't have the money, you don't get the sweets. But if you are a farmer in an irrigation network, or a grazer who has inherited the right of access to the commons, or a traveller on the road, or a person who breathes air or enjoys sunshine, it is hard to exclude you from the enjoyment of such things. Plans to make money by making people pay for them may not work.

Having defined these two properties, Ostrom pairs them up, and suggests that, for each pairing, there is an appropriate form of exchange:

1. *Low subtractability and little difficulty in excluding beneficiaries*. The natural example of this combination is bridges: except at a trivial level, a bridge is not used up when a person crosses it; on the other hand it is not difficult to stop people crossing, so it is feasible to make them pay. These tend to be supplied as *toll goods*—a rather minor form of transaction.
2. *Low subtractability and much difficulty in excluding beneficiaries*. This group contains environmental assets such as sunlight, and the things (like roads) which we pay the government or local *authority to provide for us, which we then see as our deserts or rights as citizens: no one can take them away from us. These are *public goods* (joy and commas also belong to this pairing, though "public goods" doesn't seem to be quite the right label for them).
3. *High subtractability and little difficulty excluding beneficiaries*. This is the most common combination, the case of *private goods*, provided for payment—the simple exchange of goods and money.
4. *High subtractability and much difficulty of excluding beneficiaries*. The problem here is obvious. There is an asset which can be depleted; at the same time, it is hard to stop people helping themselves when they feel like it, as Garrett Hardin recognised.

These are suitable as *common-pool resources*, as discussed in this entry.

The commons, then, is a practical, and necessary, solution to a particular set of conditions. And it has crucial significance for the future. The *market economy has crowded out—privatised—the greater part of the goods and natural assets which, in an earlier age of community, belonged to pairing 4 above. In so doing, it has created the 'Tragedy of the Commons'.

The world of pre-industrial—and to an even greater extent, pre-state—community was indeed subtractable, and excluding beneficiaries required nothing short of the invention and maintenance of a *culture and society, a task sustained for a long period by the ethic of the commons. We don't know how far back along that road we will need to travel, but it will be some distance. *Script.

COMMUNITY. Community can mean many things. One of them refers to common interests—the Morris dancing community, the gay community, the Facebook community. These are reasonable understandings of community, but they fall outside the bounds of this entry, which explores community in the sense of living in the same place.

The character of such communities is varied, and many attempts have been made to devise a frame of reference for making sense of their differences. The best-known way of distinguishing between them was provided by Ferdinand Tönnies, who (in 1887) pointed to the difference between the internal bonding of *Gemeinschaft* (where *cooperation by members of a group is shaped by a commitment to its values), and the external bonding of *Gesellschaft*, (where it is shaped by their belief that this happens to be a good way of advancing their self-interest). Studies of community have used this as a starting point ever since. In fact the question of what makes a community and what part shared values have to play in it can get rather dry and arcane, but we need to visit it, if only briefly. Before that, though, let us visit some of the real-life communities of the past and present. The history of the world could be told in terms of the history of community, but this selective observation will start in eighteenth century Manchester.¹⁹²