



The importance of a common pool mentality



Common resources are best managed by the people who most benefit from them

In last year's November sales, the Chinese technology platform Alibaba handled peak traffic of 80,000 orders per second. This is an incredible feat, matched, if not exceeded, by another occasion when a [denial of service attack](#) rained over 450 Gigabytes per second of traffic on its site; Alibaba repelled it. Not surprisingly a company with these capabilities is one of the richest in the world.

The stark fact is though, that the Alibaba platform is mostly made up of open source components or what can be better referred to as common pool resources. For those who don't follow open source

innovation, it is worth clarifying two points. First, open source is created outside the enterprise by a nominally open and self-regulated community of developers. Second, there is nothing unusual about a large enterprise relying on these open communities for their computing software. Open source now drives most of the basic innovation in IT, even in hardware.

In the broader endeavour to innovate more quickly we have also seen 'open' initiatives in [design](#) and engineering. And we have seen attempts to create [open access](#) publishing for science as well as open biology through [citizen laboratories](#).

Governance

What is missing from these initiatives outside IT, is a sense of how the common pool should be run. Open source software has norms and values that help produce good code. Despite having norms and values, a number of companies still fail to do good open source because they struggle to align with a new set of values. As an example, the failed attempt by Nokia in 2009 to create a bureaucratic version of open source--opening up 20 million lines of its Symbian operating system--is a large part of the reason why Nokia no longer exists.

Yet open source software has offered a model of how to innovate and do business differently. Executing open programmes, though, is tough.

The global economy is becoming more dependent on common pool resources; and not just on the [creative commons](#) of non-copyrighted information. These include the basic infrastructure of the world wide web, the maverick or Black Swan protocols around the virtual currency Bitcoin. Such initiatives are stimulating new thinking on an Internet of Finance, and the inevitable growth of non-institutional bio-science, engineering as well as product design through customer participation.

Managing the Common Pool

As the economy becomes more dependent on common pool activity, it is also becoming more polarised between people who work in the common pool ecosystem--often for low rewards--and the platforms (such as Apple, Google, Uber) that can exploit common intellectual assets to create astounding rewards (Apple recently posted the [largest profits](#) in corporate history). Solving this dilemma could be the key to a true [open innovation](#) ecosystem.

Still, there is a difference between 'open' and 'common.' The Nobel prize-winning economist [Elinor Ostrom](#) spent a good deal of her time investigating how common pool resources are best managed. By a common pool, she meant entities like lakes and the communities that form around them. Or policing and how the activities of a police force are best controlled to avoid corruption and waste.

She found that almost without exception, common resources are best managed by the people who are most affected by them. She also found that above the local level, arrangements are more effective when they are polycentric; that is when they avoid one monolithic governance structure. Think, for example, of European fisheries policy and stock depletion. This gives a sense of how a centralised policy can wreck a resource pool.

Without common pool resources, Alibaba would never have been able to process 80,000 orders per second. With common pool resources, many scientific challenges could be solved. For example, General Electric has bet on such an approach with its cancer diagnostics and industrial data initiatives. In both cases, it has opened up data to the science community to create new solutions.

The missing ingredient is how these common pools can be maximised so that innovation becomes an enriching activity for all of us. The missing ingredient, in other words, is polycentric management, a form of science and innovation where more of us who are affected can manage the resources.

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