

Bridges, Software, Copyright, Patents and Open Source

Bridges come in all shapes and sizes, from the 4,200 ft span of the Golden Gate to the pipes under the road at the top end of Sandy Creek. If anything software is even more diverse, from programs with tens of millions of lines of code down to simple routines of a line or two to automate some mundane task.

Constructing a bridge costs, as does developing software. The vast majority of bridges are public property. They have been funded and built by such a large pool of people – government's of one form or another – for the common good, for use by anyone at anytime. However there is a substantial pool of private bridges. Most of these are bridges built for specific non standard vehicles such as trains. Others are built for the conveyance of standard vehicles but tolls are charged for a variety of reasons.

Starting from the precept "We are human, we can do anything and get to anywhere we want", a toll bridge must provide a cheaper and/or quicker alternative to other ways of getting from A to B. To invest in the toll bridge its constructor determines that he can charge a particular toll, at that toll he will get a particular amount of traffic and that this income will repay the cost of building the bridge. The constructor needs to satisfy themselves about the surety of the factors that affect the bridge usage. They minimize their risk by identifying as many factors that will adversely affect bridge traffic as possible and blocking these adverse factors where possible.

Where huge bridges are required, the Golden Gate, Sydney Harbour and the like, tolls can be seen to be fair without imposing monopoly conditions on the general populace. No conditions need imposing on ferry services, no conditions need imposing blocking alternate routes, the bridge operates in a standard competitive environment because it is so obviously a beneficial object.

On less obviously beneficial bridges the actions of people are substantial factors that affect the financial viability of the bridge. Controlling these actions is a form of monopoly rights granted by the relevant government(s). These rights include: restricting other river crossings; guarantees of road construction to ensure their bridge is the prime route over the river; concessions that the investors have the sole rights to offer peripheral services, service centres offering fuel and food etc. These rights are generally granted for a limited time and the bridge often reverts to public ownership at the expiration of this time.

This model is open to abuse. The rights granted may be disproportionate to the benefits. A bridge may be built over a small creek for little cost and the constructor granted a perpetual ban on any other bridges being built 20 miles in either direction. Or the government may agree that other routes will be closed or allowed to degrade, or they may put restrictions on other services, or they may allow the operator to insist that users of the bridge utilize other services before they can use the bridge etc. etc.

Transferring this view of bridges to intellectual property one would have to conclude that there are no Golden Gates or Sydney Harbour's. Every method developed has alternatives that can be simply developed and deployed. Intellectual property monopoly rights can only be related to the pipes under the headwaters of Sandy Creek with a guaranteed monopolies 20 miles in either direction. They are completely out of proportion with the benefits these pipes offer.

In fact the situation is worse than this. A better metaphor is monopoly rights to a pipe under a train line. The pipe owners charge not only a toll for using the bridge but force you to load your car onto their railway carriage and force you to utilize their passenger service for the 200 yard journey over the Sandy Creek floodplain. The alternative is to drive an extra 50 miles through the mountains because they have monopoly veto rights over any road bridges over Sandy Creek.

Another alternative, that can be likened to open source, is a group of people deciding to found a new town where they build a free public bridge. They need the bridge for themselves in any case, but supplement their living by providing services to travellers and by opening up industry in the general vicinity. They build a causeway over the floodplain slowly, by simply carrying a rock and dropping it every time they use the bridge. Rather than using a stick to force people to use the bridge they use a carrot of good amenities and fair service in peripheral goods and services. From their initial investment and foresight they and their subsequent generations become the town founders and respected citizens. On you Linus.

Glenn Thorpe