

Blender and the Street Performer Protocol: Freak success or first of a trend?

A Case Study of Open Source Economics.

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October 2002

Abstract

The *Street Performer Protocol*, first introduced by Kelsey & Schneier, describes a method for the private funding of public information goods. A campaign by the *Blender Foundation*, using this method to collect donations for releasing the Blender 3D software as Open Source, has been very successful. This demonstrates that the Street Performer is not just an interesting theoretic construct, but can actually be a viable economic model for funding Open Source works in real life.

This paper presents a few thoughts on this test case of the Street Performer Protocol, and reflects some of the related discussion at the Blender Conference 2002 in Amsterdam.

1 Introduction

In March of 2002, *NaN Technologies BV*, the company developing the popular 3D freeware *Blender*, had to file for bankruptcy, setting off concerned discussions on the future of Blender on many 3D community sites. The intellectual property rights to the blender source code and brand rested with a holding company, *NaN Holding BV*. In July of 2002, the newly created *Blender Foundation*, [1] headed by Ton Roosendaal,¹ started a campaign to collect donations from Blender users toward obtaining the right to release the software as Open Source under the GNU GPL. The owners, NaN Holding BV, had put the price tag for this at 100 000 Euros.

*With special thanks to Ton Roosendaal, the participants of the *Street Performer Roundtable* at the Blender Conference, Oct. 11th, 2002 in Amsterdam, and the whole Blender Community.

¹the original programmer of Blender and founder of NaN Technologies

The campaign was successful and on the 13th of October, 2002, Blender was released on the Internet as Open Source. It was the first large-scale test of a business model for privately funding public works that had already been discussed in theory for a few years, but had not yet been put to a serious test. It has become known as the *Street Performer Protocol*.

In 1998, Kelsey & Schneier presented a conference paper titled *Electronic Commerce and the Street Performer Protocol*[8]², which became the foundation of several further articles, all dealing with the problem of privately funding public information works. They started from the analysis that it will become increasingly difficult to enforce copyright in the future, due to the proliferation of inexpensive tools for perfect reproduction of digital information. They concluded that new ways of compensating creators of information works would have to be found because the traditional “per copy” charge would become very hard to enforce, short of obliterating all privacy and electronically spying on – and tracking – each individual customer.

Their solution proposes collecting donations toward paying an author/performer what he or she considers adequate pay for the initial *performance* (writing a book, painting a picture, playing music, shooting a video, etc.) in order to gain the rights to *reproduce* the result of the performance freely and indefinitely for everyone. The Internet, by practically eliminating traditional costs of storing, reproducing and distributing information works, has enabled such a model. In former times, such an approach could not have succeeded, as every copy and every movement of that copy incurred real costs associated with working on and moving physical matter.

²Another version of their paper was published the following year by the Internet journal *First Monday*, under the title *The Street Performer Protocol and Digital Copyrights*

2 The Street Performer

The Street Performer Protocol adapts the process that street performers have been using for ages in order to “sell” their performance.

- They collect a crowd by starting their performance and demonstrating the ability to create value to their prospects. Only after a sufficient audience has been assembled, do they begin to solicit money, with their still upcoming “masterpiece” as their part of the bargain.
- This is traditionally accomplished by collecting contributions in a hat, proclaiming that they want this filled to a certain extent before they can proceed.
- Once they decide they have collected enough money, they proceed with the show – and even those who did not contribute can watch. This is the critical difference compared with other revenue models.

3 SPP and other models

For many people, first learning about the Street Performer Protocol triggers associations with other non-traditional revenue models for digital works.

3.1 Stephen King’s honor system

A frequent association is Stephen King’s experiment with publishing a novel (*The Plant*) online in sequential chapters in 2000. He vowed to continue writing chapters as long as a satisfactory proportion (at least 75%) of downloaded copies would be paid for (\$1 each) by the readers. To the surprise of many who had predicted free-loading, over the first few months, payment actually hovered around this 75% mark. Later on, the percentage dropped, and Stephen King decided to put *The Plant* on ice after the 6th installment.³

However, the important difference to the SPP is that Stephen King stuck to the traditional “pay per copy” model much more than was discussed at the time. Insisting on \$1 being paid for at least 75% of chapter downloads has the same monetary effect⁴ as setting

³There is some debate about who did not keep their side of the bargain - Stephen King or his readers. After all, many readers ended up paying \$7 for an unfinished story. [10]

⁴but maybe much less publicity

the price at \$0.75 and insisting on each download to be paid: The author is still demanding a certain price for *each copy* of the information work.

Had he used the SPP, he would have set a price for each *chapter* (not each

copy), i.e. 100 000 US\$, and released the chapter freely for everyone to read, once that amount of money had been collected.⁵

3.2 Shareware

Another association is Shareware, usually expressed along the lines of “I use the software, and if I like it, I register and pay.” While common in practice, this attitude does not reflect the Shareware protocol. The Idea behind Shareware is “try before you buy” - you may only use Shareware freely for a limited period of time (30 days is a common timeframe) in order to determine if it fits your need. After that time, you are legally required to pay if you continue using it. The fact that this rule has been difficult to enforce, leading many people to “try” the software indefinitely,⁶ is beside the point. Freeware, for which the author may choose to accept voluntary donations, is a different issue. This is actually a form of tipping.

3.3 Tipping Protocols

Some interesting concepts have been developed over the recent years in the area of tipping – voluntarily rewarding the creator of a digital work after the fact. There are some good papers by Woodhead (Tipping [12]), Coleman (Busking [3]) and Hapgood (Voluntary Payment [5]).

The *Tipster Protocol* by Jeff Kandt [7] is being discussed as a technical foundation for the diverse tipping schemes. Its goal is to provide a “Tipster block” to be attached to information works flowing freely through Peer-to-Peer file sharing services, in order to facilitate the donations of voluntary tips to the originator if a user enjoys the author’s/artist’s work.

4 Trusted Third Party

In carefully designing their model to ensure that all players had a clear incentive to stay honest, Kelsey &

⁵This is, by the way, not an inflated number. The first chapter of *The Plant* alone had already attracted payments in excess of 100 000 US\$ [13].

⁶or at least until a timer disabled it

Schneier introduced a “trusted third party” to hold donations in escrow and only release them to the artist in exchange for a performance/work of the pre-negotiated quality.

The trusted third also serves as a stable point of contact for multiple performers and multiple interested parties, lowering transaction costs (Coase [2]) for the parties involved. Once the desired sum of money is reached, the trusted third party quality-checks the performer’s work before releasing the money.

This party can take a percentage of the overall price to cover expenses or make a profit. Traditional publishers could transform to fulfill this role, as could banking institutions, as the key asset of the SPP is the trust of the performer and donator communities.

Following the original publication of the Street Performer Protocol, there have been some attempts to set up such trusted third parties as matchmakers (i.e. OpenCulture.org), but they have yet to gain prominence by successfully funding a

major project using the Street Performer Protocol.

5 Extensions of the SPP

The SPP has been criticized for being “utopian”, the key issue being the problem of free-loading. Why would I, as someone interested in the work to be funded, invest my money, when I can also hope that other people will spend their money instead, as I will not be excluded from the work once it has been funded and released.

Based on this argument, known as the “Public Goods Problem”⁷ in economics, it has been stated that the SPP is not “rational”, as the rational choice (along a prisoner’s dilemma) would be to attempt to free-load (defect). The *Rational Street Performer Protocol* [6] has been proposed as one alternative. It is based on a complex pledge in the following form:

“I will donate one dollar in every \$...
raised over \$... up to a maximum donation
of \$...”

While the proponents argue that the RSPP pledge is more rational, a key question remains: Is such a complex pledge workable in practice? Will people feel in

⁷Public goods have the dual properties of non-rivalry (my enjoying the good does not impair your enjoying it, too) and non-excludability (those who did not pay for the good cannot easily be excluded from access to it). For more information on these aspects, please refer to Hal Varian’s comments regarding the Street Performer Protocol.[11]

control? One problem is that the money is not committed and transferred at the time the pledge is made, but rather the result of the multitude of pledges is calculated, with the would-be contributors expected to provide the calculated sum on a later date. Until now, only one round of “live” testing of the *Rational Street Performer Protocol* has been published. And with a result of AU\$290 and 12 contributors in total, this cannot be called a stress-test yet. It is reported that the result was that all donators were due to pay their maximum pledge, which does not reflect a ready advantage over the traditional SPP.⁸

Another extension of the SPP is called the *Wall Street Performer Protocol*

[9], which proposes creating a marketplace for software completion bonds. While the SPP is applicable to all kinds of informatin works, the *Wall Street Performer Protocol* is designed specifically to facilitate the funding of Open Sorce *Software*.

6 Blender campaign success

The release of the formerly proprietary Blender source codes onto the Internet on the 13th of October, 2002, under the GPL is real-life proof that the economic model detailed in the Street Performer Protocol can work to privately fund “public” works.

Blender was the first large-scale reality check of what used to be criticized as a utopian or irrational model based on assumptions and thought experiments.⁹ A lot of people *did* donate money to make a software program freely available for everyone under the GPL.

Even the organizers of the Blender Foundation were caught off-guard by the speed in which the 100 000 Euros, negotiated with the venture capital companies holding interest in the bankrupt company NaN were reached. They had anticipated a timeframe of 3-6 months if all went well. Alas, it went much better than well and after only seven weeks, the target had been reached, making the campaign an unexpected success.

⁸Although the author does point out that this was expected and that the RSPP becomes superior only after several rounds of funding; the RSPP is intended for the funding of periodic works.

⁹For an interesting policy regarding thought experiments vs. real-life experiments, see the `sci.physics` “Crackpot Index.”

7 Was Blender a freak event?

Was the funding of the Blender GPL release a one-in-a-million miracle? Blender certainly had a few characteristics that may not always be present:

- Blender has enjoyed a large, active and loyal user community for several years.¹⁰
- The software was available already as freeware, everyone knew what they had and that it worked.
- There was a lot of valuable content that had been created with Blender – that was now at risk of becoming obsolete if the software was to stop being developed.

Maybe the willingness to donate was less motivated by people paying to gain access to something new and more motivated by a fear of losing previous investments in an existing, valued tool and its associated content.

But there were also some factors which common sense would have predicted to work against a runaway success. The fact that Blender was already available as Freeware (but not Open Source) could be argued to work against the SPP: People already had the software for free, why pay to have it as Open Source? But instead, users decided to donate in droves¹¹ *not* to get a new piece of software, but rather to ensure that a software they *already had* today would continue to evolve in the *future*, in order to protect their investments. This is a kind of medium- to long-term *Total Cost of Ownership* consideration which used to be put firmly into the realm of commercial IT investments, not that of amateur and semi-professional users.

8 Street Performer Roundtable

Both during and following the presentation, a lively discussion among the participants of the Street Performer Roundtable ensued, structured by a few key questions. I would like to thank all the participants for their valuable insights.¹²

¹⁰Over 250 000 registered users according to blender3d.org

¹¹more than 1300 users decided to publicly become members by paying at least 50 Euros each. In addition, there are members that chose to remain anonymous, non-membership individual donations, and companies.

¹²Please bear in mind that the statements below are sound bites and not necessarily a majority opinion of the participants.

8.1 Which lessons were learned?

In order to see what other projects might learn from the Blender case about the execution of a campaign to privately fund public works, the participants in the roundtable provided insights into what they believed went well and what did not.

- The Money Meter was important, getting direct feedback and providing continuous updates on the campaign status.
- The membership concept worked well. People felt they were immediately getting a benefit in return.¹³
- A small percentage of donors also acted like they believed that they had now “bought” something to which they were “entitled”.
- The “Pledges to donate did not work well”. Only a small percentage of pledges actually materialized.¹⁴
- The campaign also served as an important reality check: Are there enough people interested in supporting Blender?
- The sponsorships by companies did not work as well as hoped.
- The community around the software turned out to be the real asset.
- The Campaign was a bit “too” successful, overtaking the planning. The Blender Foundation team had planned for 3–6 months and not anticipated that the goal would be reached after only a few *weeks* instead. Lesson: Have a detailed action plan ready for the steps after the initial goal.

8.2 Did the “pledges” work?

In addition to receiving direct donations on the website, the Blender Foundation also provided the option of making a pledge over a certain amount of money that the potential contributor would promise to donate once the total donations were coming close to reaching the 100 000 Euros.

¹³As research in social marketing has shown, the benefit need not be tangible - i.e. charities offer a virtual benefit of a relieved conscience, the feeling of supporting a just cause, etc.

¹⁴As discussed below, the runaway success of the funding campaign may have had an impact here, as the rising Money Meter reassured pledgers that their contribution would not be required to reach the target.

From following the Money Meter on the www.blender3d.org site, and its time plot, there was an impression the pledges remained largely unfulfilled. Ton Roosendaal confirmed that, with few exceptions, the pledges indeed did not materialize. There were several ideas as to why this happened. For once, the sheer speed of the money meter rising made it clear to those who had pledged early that the goal would be reached even if they did not keep their promise. Another point was that those who only *pledged* to donate had not yet truly

made a commitment. Maybe people's "mental accounting" was stressed by creating two decision points for spending the *same* sum of money, with only the second one being relevant.

In any case, the evaporating pledges cast some doubt on the viability of the *Rational SPP*, as that is based on pledges being made first (a relative individual contribution with an upper bound) and only collected later, after all the pledges have been cross-tabulated and the result determined.¹⁵

8.3 Why did you donate?

As the SPP has been called utopian and irrational, a key the question of interest was: Why did people pay? What were they *thinking*?¹⁶

- "Everyone likes Ton. He's a *real person*, he makes it *personal*."
- "Ton has always been great for the community - I felt it was time to give something back."
- "I knew that Blender worked and wanted to keep it working."
- "I could not afford to lose my previous investment (time, learning, content...) in Blender."
- "I like the idea of Open Source, so I donated to make Blender freely available."
- "I wantet to help keep the software available for people who do not have enough money to buy other 3D packages."
- "I wanted to know the 'Ins and Outs' of the software."

¹⁵Of course, several mechanisms could be put in place to enforce the pledges, such as a *Wall of Shame*, but obviously this was not necessary in the present case.

¹⁶Again, please bear in mind that this is not a representative survey of donors to the Blender Foundation, but rather a collection of soundbites from people attending the SPP Roundtable at the Blender Conference.

- "I wanted to get my hands on the sources!"

Of course, human decisions are usually a complex blend of several factors. Still, trying to cluster these statements to reflect different factors may be an enlightening exercise.¹⁷ According to Herzberg's Two Factor Theory, we can distinguish two distinct kinds of influences on motivation: *Hygiene Factors*, which need to be present to allow or facilitate action, but do not motivate the action themselves, and *Motivators*, which are a cause or motivation for action.¹⁸ In the case of these sound-bites, we can easily identify a *hygiene factor*:

Hygiene Factor: Trust in the organizer as a person.

To illustrate: While Ton Roosendaal's reputation in the Blender community is important to eliminate any doubt regarding the improper use of the funds, him just being a "great guy" would in itself not be sufficient motivation for many people to donate. But the Hygiene Factor *is* very important because it is a prerequisite for motivation to be successful. This happens due to the influence of *motivating factors*:

Motivator: Securing previous investments.

Motivator: Improving the software's future.

Motivator: Receiving access to the source codes.

People likely differ in their motivation - i.e. getting access to the source code may be a very strong incentive for a programmer or a professional company, but is not itself important for an end user. The latter may be happy that the code is out there and people can improve it, but access to the source code is not an incentive, because he lacks the skill or motivation to work on the code itself. Maybe someone in the Blender community will carry out a detailed survey in the future, regarding the key considerations and factors that influenced the donors' decisions.

9 Conclusions

Although it is too early to determine with any certainty whether the success of the Free Blender campaign was a unique event or just the first of a number

¹⁷This is, of course, just a first stab at better understanding the motivation of donors. A more in depth analysis of the donor's motivations is entirely called for.

¹⁸Yes, Herzberg's theory is essentially about motivation and satisfaction in the *workplace*, but I have taken the liberty of applying his terminology here as well.

of successful applications of the Street Performer Protocol, a few insights could already be gained, bringing the SPP down from abstract academic predictions and discussions about how the homo oeconomicus is expected to act (rational or otherwise) into the *real* world of *real* people spending *real* money. More than 100 000 Euros,¹⁹ while palling in comparison with some other software revenues, are still serious money that cannot easily be dismissed. Blender users have voted clearly and swiftly with their virtual feet and real money that the SPP model works for them.

And I believe that another lesson is that a healthy community and a few dedicated people can accomplish much in very little time by simply going ahead and doing it, instead of debating over whether it is doable or how best to do it.

Like Alan Cox illustrated in his essay *Cathedrals, Bazaars and the Town Council*[4], people can debate back and forth on principles and practicalities no end. Sometimes, the only way to get anywhere is to let the debaters debate while going ahead and producing results in the meantime.

On this note, I wish to tip my hat to the Blender crew and community that “just did it.”

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¹⁹Roughly the same sum in US\$