

Open Content Licensing Initiatives

PROFESSOR ARUN SHARMA

I have been a spectator of open source for quite a while. The first operating system I used as an undergraduate student in the early 1980s was a form of Unix and since then I have stuck with Unix. In the early 1990s I was a post doc at MIT at the time Richard Stallman was becoming a cult figure, who in some sense was a precursor to what Linus Torvalds did in the 1990s. If you try to look at the history of open source it is replete with examples of how things have happened. But, while I have always respected, and been amused by, and admired, people working on open source, I have always felt that they have become a little evangelical, and at times, very strident. The game has to be at the intersection where you have a system that has a continuum, where people can move from one part of transacting business to the other part – sometimes it is commercial, sometimes it is something that you just want to be given away for free, and sometimes you want to give something under certain considerations.

The fact that it is good for society to have multiple ways of these things happening, some commercial, some free, some restricted free, came home to me when I was the Head of the School of Computer Science and Engineering at the University of NSW. I was the Head during the IT boom. It was a School that attracted some of the most talented students in New South Wales. We were producing more than a hundred first-class honours graduates per year during the boom and I had all these talented students and I needed to do something with them. In turn, I found that mostly they were three types of personality. One particular group was highly academic, motivated by the sheer elegance of ideas and these were the students who no matter what you did with them were going to do a PhD. There was another group, extremely intelligent, highly aggressive, wanting to make money. They really were out there to start a company, get a job, do something and get ahead in life. They were as talented as my best students, who were going to become academic stars. And then there was another group. In terms of intellectual ability they were equal to the first two groups, but they were a bit more laid back. They felt that ideas ought to be free. They looked like hippies; they had long hair. They were equally excited about doing something that was good and I pondered ‘what I am going to do with them?’, and I decided ‘I am going to give some resources to each of the three groups’.

For the students who were talented and wanted to be academics, I gave them summer research scholarships, lots of money; so they did not have to go and flip burgers or work at the supermarket. Any job they wanted, they could just work in the University, work with researchers and be happy. With the group that really wanted to go places, I partnered with the Australian Graduate School of Management, got a bank to give \$30,000 a year, and created the Business Planning Competition, which really excited them. For the open source group, a highly talented group of people, I gave them resources to create, become part of the open source movement, and even funded them to organise an international Linux User Group Conference which attracted 400 researchers from around the world.

The interesting thing was that by giving resources to all these three people, I basically said 'go out and show each other'. They hated each other. They wanted to prove the point that they were superior and I can tell you all three groups achieved. The thing that came back to me is that the world is not going to be coloured by a single commercial way of doing things or a single way of the intellectual elegance of ideas, nor is it going to be something where everything is going to be free. It will always be a continuum. There is a place for talented groups of people of different personalities and we need to support each of them.

Another experience with this kind of thing is that I was once co-opted into working with a project coming out of Carnegie Mellon University in the US, the Million Book Visual Library Project. It is being driven by computer scientists and librarians and the aim is to digitise as a demonstration case one million books that are out of copyright. From the computer scientist perspective it is to create a demonstration for extremely interesting software search engine techniques. If everything that has been written is digitised and also can be scanned in text form, it provides a test-bed for doing a more interesting search, where we can search the history of the development of a certain idea (that the software can do for us). It will provide a significant research tool that can take the web from being a search engine to a discovery engine. That is the motivation from the computer scientist perspective. The librarians have the perspective that if this happens then they will be able to provide higher value added services to the users of the library by helping them become their research assistants. The project is very interesting; the pilot was funded by the National Science Foundation. Minolta provided scanners at very low cost, some of the US research universities provided the books and the Governments of India and also China provided the labour for scanning. The books are being shipped to India and they are being scanned. There are lots of logistical

problems in this but the good thing is that it is close to 100,000 books that have now been scanned.

The challenge is: what you are doing is great; you are creating new content and you are going to put this thing over the Internet and have an open content licensing scheme, but it is about the legacy. What do we do with all these books, which are still in copyright? The author has died, and the relatives own the copyright but no one cares. This team is working on ways where people can surrender their copyrights, or if you cannot find the author or the owner of the copyright, you can at least place the book on the web with the caveat that if the owner of the copyright comes in, you will take it off. Whether that is legally kosher or not is a different question and the lawyers are working on these ideas. And that will provide a very interesting perspective on how these ideas will develop. At the end of the day it will be a combination of open content licensing and also the commercial solution. These are some of the influences that I have had in dealing with these issues.

Computer scientists tend to build systems that are very generic. We say we will build a machine learning system that will learn anything. We will design a software development tool that will design any kind of software tool. Very soon we find out that it does not work. What we then do is find two ways to constrain our problem. One is we look at a specific domain; we say I am only going to develop software in the area of business or I am going to develop software in the area of mining or in the area of educational software, and then the problem becomes manageable. The alternative approach is the very large project, and I am doing it in a very informal way. Can I do it in a more formal way? We start resorting to the language of mathematical logic to specify the problem, to find the proof checking mechanisms so that the semantics of our intentions can be verified. And that leads to things like Digital Rights Management.

This session is representing both these constraining mechanisms. The first topic about AShareNet is taking the ideas of open content licensing into the educational content software, in the educational content areas. The second topic is about Open Visual Rights language and applying it to the subject of Creative Commons.