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The Open Source Business Resource

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EDITOR:

Dru Lavigne
dru@osbr.ca

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ADVERTISING:

Rowland Few
rowland@osbr.ca

GRAPHICS:

Ryan May

ADVISORY BOARD:

Tony Bailetti
John Callahan
Kevin Goheen
Peter Hoddinott
Thomas Kunz
Steven Muegge
Trevor Pearce
Stoyan Tanev
Michael Weiss

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Two reports issued this week provide very different numbers regarding the adoption of open source. IDC proclaims that "the economic slowdown in the United States may actually boost demand for open source services. If organizations adopt more open source software as part of a strategy to reduce software costs, the demand for related services should increase" (<http://tinyurl.com/5go4yu>). The US-based survey reports that "almost 60% of the survey respondents said their company's spending on open source increased in 2007". This is in stark contrast to Statistics Canada's findings that "17% of private sector firms reported *using* open source software" and "3% of private firms and 13% of public organizations reported *customizing* open source software" (<http://www.statcan.ca/Daily/English/080424/d080424a.htm>).

In Canada's case, I'm reminded of the statement made by Waugh Partners regarding Australia's adoption of open source: "we knew that our country has produced some of the world's most influential Open Source innovators and projects. We knew that clever, home-grown Open Source companies were succeeding in local and export markets. But we didn't have the numbers" (<http://census.waughpartners.com.au/census-report-2008-r1.pdf>).

One of the reasons we launched the Open Source Business Resource was to communicate the open source innovation taking place in Canada. This month's Lead Projects section introduces the Open Source for Ontario Companies inventory. The Conference Report highlights the key messages from the first two presentations in the Technology Innovation Management (TIM) Lecture Series which have attracted standing room only crowds and hallroom discussions long after the presentation has finished.

The articles this month revolve around the theme of communications. Jim Van Megellen from the asterisk community provides practical advice for implementing a technical solution that meets a specific business need. Edy Ferreira from Carleton University discusses research into open hardware business models and Minjeong Kim from Hawaii Pacific University discusses research into who is using Creative Commons licenses and for what purpose. Gerald from the VoIP (voice over IP) community answers the question "where is the promised convergence?" and discovers that existing technology is not the only piece of the convergence puzzle. You'll also find dozens of upcoming events and both of the recently published reports are well worth downloading and reading.

We're slowly putting together the pieces to our own communications puzzle. This month the HTML version contains PDFs to slide presentations and will soon contain links to audio and video presentations. As always, we look forward to your feedback and remind registered readers to take advantage of the reading tools provided at the website.

Dru Lavigne

Editor-in-Chief

dru@osbr.ca

"[I]f you cannot articulate your business needs and identify IT products that can help you fulfill those needs, you end up thinking in terms of concepts...And when that happens, the marketing departments have got you. No matter how objective you think you are, you will inevitably find yourself choosing a brand name."

Lajos Moczar

<http://www.galatea.com/openstructure.html>

Open source telecom platforms have matured to the point where they are often functionally superior to more traditional products. A case in point is asterisk (<http://www.asterisk.org/>), an open source PBX (private branch exchange) and telephony engine, which was recently named "best IP PBX" in Info World's 2008 Technology of the Year Awards (<http://tinyurl.com/68fm67>). While industry recognition can be a compelling argument for adoption, it is still difficult to stake one's reputation on the implementation of any software in a mission-critical solution without having first built a solid foundation on which to do so.

With the right approach, you can deliver a superior open source solution to your telecom problems, at far less cost than using proprietary offerings. Implementing an open source telecom system is similar to any development project: there are steps you can take to lower risk and ensure a successful result. This article provides a practical approach for technical implementors to build a track-record of success that will help win approval for more challenging business initiatives.

Start with a Business Need

When you look into the potential of an open source telecom platform, it is easy to become excited at the technical possibilities.

Asterisk can provide any functionality required of a telephone system, as well as other features that probably have never been attempted before with a telephone system. This does not mean, however, that you should dive right in and attempt to implement a fully database-driven, mission critical IVR (interactive voice response) system with speech recognition and web-integration. Yes, such things are possible, and even relatively easy to do, once the right skills are obtained. But the sage advice is to start small, and build on success.

In far too many projects, the focus is on the technology, not on the organizational problem that is being solved. This is risky behaviour regardless of the project, but in an open-source project, where there is often a perception that the technology is hobbyist-grade, it is doubly important to focus on the business need. Find a simple problem that needs solving, that is not overly complex, and that can be implemented within a reasonable budget.

The needs analysis can be challenging. Many businesses don't know exactly what they need. Moreover, traditional telecom systems tend to be inflexible and many companies have developed a defensive mindset towards solution brainstorming. There can also be political pressure to go with a shrink-wrapped solution, as there is a perception that this is a lower-risk approach. Don't hide the risks. You will build more credibility for your case if you show that you have a balanced approach to the challenge, and have considered the downsides as well.

When preparing for the needs analysis, consider the following:

- existing politics can introduce illogic such as a perceived threat to job security
- there may be pressure from existing vendors to maintain the status quo

- humans don't like change
- if you can't discuss the ROI (return on investment), you're not prepared
- your idea might not save as much as you think--be aware of the hidden costs such as training, patch management, and ongoing support

Skunk Works

When first implementing an open source solution, it is probably wisest to fly below the radar (<http://en.wikipedia.org/wiki/Skunkworks>). The more noise you make regarding your implementation, the more any failures are likely to be blown out of proportion. Under-promise and over-deliver is your mantra.

Do lots of prototyping work. From that work, you will be able to determine whether what you are trying to do is, in fact, doable. In many cases, the little things that you didn't think about could prove to be show-stoppers. Better to find this out before too much is riding on the project.

Do not show anything you are developing to the naysayers until a working prototype is available. Naysayers focus on the problems, rather than the potential. If problems exist with the prototype, make sure you are the one that identifies and explains them. This will demonstrate that you are on top of the situation, and defuse any criticism before it begins.

Don't waste too much time on the "cool" features of your solution, but keep your focus on the business case. You will look far more professional this way.

Whenever possible, find an executive champion who believes in your solution and who can assist you in demonstrating a balanced approach to the solution.

Remember that open source projects are often perceived as high risk and that the rewards may seem obvious to you, but not necessarily to others.

Hiring Outside Talent

At the early stages of adoption, it can be helpful to have access to experienced talent. While the whole reason to use open source can be to reduce dependence on outside vendors, this does not mean that enlisting some experienced help is a bad idea.

When you engage a consultant, you need to do your research by checking references and using Google. The consultant should be someone who is active in the open source community as this increases the likelihood of good access to the development team.

If your goal is to hire a consultant to get your implementation started, and then take the technology in-house, make sure the consultant knows this and there is a plan in place for the consultant's exit. If there is no plan, you run the risk of a longer-term dependence than originally anticipated and budgeted.

Planning The Project

Once you've produced a successful prototype, received buy-in from affected parties, and have the go-ahead, the real work begins. In order to ensure success, there are some basic project management strategies that will ensure that your first open source telecom project is not your last.

First and foremost, you need to manage people's expectations. When the question "can we do?" arises, the best answer is "yes, but I recommend we put that off until phase two, in order to ensure that we keep the risk level in phase one as low as possible".

Second, you need to have a well defined scope. No project is immune from the possibility of scope creep, and this is arguably one of the surest ways to kill a project (http://en.wikipedia.org/wiki/Scope_creep). When you are getting pressure to change the scope of the solution halfway through the project, you need to resist the temptation to be the hero. Either push the change off to phase two, or push the due date for phase one. Using project management software that allows you to produce a Gantt chart (<http://en.wikipedia.org/wiki/Gantt>) or some other visual representation of the project will allow you to show how a seemingly minor change can have seismic repercussions.

Third, don't trust the white board. People often make all kinds of wild assumptions during planning sessions, with little or no regard to what actually exists in reality. Pre-survey as many details as you can, because it will save you a ton of grief, time and expense. Most people learn this the hard way.

Fourth, pay attention to the basics of customer service. Treat the end users and stakeholders as if they had purchased the solution from you. Take the time to listen to their concerns, and make sure that a comprehensive support and training plan is included in the scope.

The Cutover

Once the system is built and ready to be put into production, several techniques can help to keep this stressful event as painless as possible.

First and foremost is to beware the partial cutover. During even the most well-planned projects, there can be a time when the fear of change rears its head. This will often appear as a panic-induced pressure to do a partial cutover. Never do this.

Either cutover to the new system, or don't, as a partial cutover will be a disaster. The reason is simple: nobody planned for a partial cut, so what you have is a totally different system from either the new or the old, without the benefit of any planning. Naturally, this disaster will be blamed on you or your project. Also note that if you do not go ahead with the cutover, there is a good chance that you won't get a second chance.

On the first day following cutover, you may be faced with angry people. This is an unfortunate side-effect of the disruption caused by a new phone system. It is best to assume that this will happen so that you can prepare for it. It can be intimidating, but as long as you recognize that it is the fear of change that is talking, you will have a chance to work through it. Also, this is another reason why training is so important. Training allows everyone a safe environment to deal with the emotional impact of the new system.

Summary

From the business perspective, implementing an open source solution is very similar to implementing a solution provided by a vendor. With proper planning and a focus on the business needs being met rather than the technology being implemented, an open source implementation can be managed and result in success.

Jim Van Meggelen is President and CTO of Core Telecom Innovations, a Canadian-based provider of open-source telephony solutions. He has over fifteen years of enterprise telecom experience, for such companies as Nortel, Williams and Telus, and has extensive knowledge of both legacy and VoIP equipment. He is one of the principal contributors to the Asterisk Documentation Project, and is co-author of Asterisk: The Future of Telephony.

OPEN HARDWARE BUSINESS MODELS

"Business models are abstract, complex concepts of which understanding can be enhanced through the development of a general classification scheme."

Susan Lambert

<http://business.flinders.edu.au/research/papers/06-6.pdf>

In the September issue of the Open Source Business Resource, Patrick McNamara, president of the Open Hardware Foundation, gave a comprehensive introduction to the concept of open hardware, including some insights about the potential benefits for both companies and users (<http://www.osbr.ca/ojs/index.php/osbr/article/view/379/340>).

In this article, we present the topic from a different perspective, providing a classification of market offers from companies that are making money with open hardware.

Defining Open Hardware

There is no consensus about the definition of open hardware. For the purpose of this article, we use the term open source hardware (OSH) and define it as any piece of hardware whose manufacturing information is distributed using a license that provides specific rights to users without the need to pay royalties to the original developers. These rights include freedom to use the hardware for any purpose, freedom to study and modify the design, and freedom to redistribute copies of either the original or modified manufacturing information.

This definition fits what McNamara calls "open implementation" hardware, described as "hardware for which the complete bill of materials necessary to construct the device is available."

In the case of open source software (OSS), the information that is shared is software code.

In OSH, what is shared is hardware manufacturing information, such as hardware definition language descriptions, and the diagrams and schematics that describe a piece of hardware.

Opencores (<http://www.opencores.org>) and Opencollector (<http://www.opencollector.com>) are two Internet repositories of OSH projects. These two sites list more than 600 projects, from designs for printed circuit boards to hardware description language (HDL) code for microprocessors.

OSH Market Offers

By using those Internet repositories, search engines and additional information gathered from the OSH community, we searched for companies that offer products and services based on OSH designs. Twelve companies were found and included in this research. The OSH offerings of these companies are summarized as follows:

1. Adafruit Industries (<http://www.adafruit.com>): several electronic boards
2. ASICS.ws (<http://www.asics.ws>): several IP cores
3. Corgan Enterprises (<http://corganenterprises.com>): Universal Software Radio Peripheral (USRPs), a device that allows the creation of software radio using any computer
4. Elphel Inc. (<http://www.elphel.com>): model 333, a video camera
5. emQbit (<http://www.emqbit.com>): ECB_AT91 V1, a single board computer
6. Ettus Research (<http://www.ettus.com>): USRP

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7. Free Telephony Project (<http://www.rowetel.com/ucasterisk>): IP04, an embedded Asterisk PBX
8. Gaisler Research (<http://www.gaisler.com>): Leon 3 and GrLIB library of IP cores
9. Modern Device (<http://www.moderndevice.com>): Bare-Bones Board, a computing platform card
10. Polarismicro (<http://www.polarismicro.com>): OpenSPARC, a microprocessor
11. Smartprojects (<http://www.smartprojects.it>): Arduino, a computing platform
12. Technology System (<http://www.embbeddarm.com>): TS-7300, a FPGA (field-programmable gate array) computer

Based on the analysis of the twelve companies, we identified 56 market offers. These were classified using four dimensions: i) type of market offer; ii) ownership of OSH project; iii) type of OSH asset transformation; iv) and importance of OSH to the market offer. Our findings can be summarized as follows:

Type of market offer: forty four of the market offers were for manufactured products, such as printed circuit boards. Six of the market offers were for intellectual property, such as electronic circuit designs and software. The remaining six offers were for services, such as consulting, custom designs and training.

Ownership of the OSH project: fifty three of the companies own the OSH projects upon which their market offers are based. There were three cases of companies whose one market offer was related to an OSH project owned by another company or individual.

Type of transformation of the OSH asset into the market offer: this dimension refers to the type of activity that is needed to transform the initial OSH asset into the final market offer. Our analysis revealed four market offers requiring software development, fifty one offers requiring hardware development and manufacturing, and one market offer for the same OSH asset without any transformation.

Importance of the OSH for the functional integrity of the market offer: this dimension has three possible options. The design of thirteen market offers did not include any open source component and were classified as "pure-close offers". The designs of twenty eight market offers are completely based on open source components, and were classified as "pure-open offers". The core of fifteen of the market offers are based on open source designs but also include additional proprietary components; these were classified as "open-driven offers".

Making Money with OSH

Using these four dimensions, we found eight different ways of making money with OSH in the listed companies. Those eight methods are summarized as follows:

1. Consulting and custom designs over owned OSH (three market offers): this category includes companies which sell services related to the OSH projects that they own. Those services could be custom designs or consulting.

2. Consulting and custom designs over third-party OSH (three market offers): this category is similar to the previous one, but the services sold are for OSH designs owned by other companies. As an example, Polarismicro sells consulting and custom designs based on OpenSparc, an OSH project owned by Sun Microsystems.

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3. Proprietary hardware designs based on OSH (one market offer): this category includes companies that sell modified versions of OSH projects that they own. The market offer is intellectual property in the form of schematics, diagrams or any other type of hardware design information. The OSH assets are transformed into the market offer by designing proprietary hardware modules (hardware development) that modify the OSH asset (open-driven offer). Gaisler Research sells the netlist information for Leon-3FT, a fault-tolerant processor code based on Leon-3.

4. Proprietary hardware based on OSH (eight market offers): this category includes the sale of modified versions of owned OSH projects. The market offer is the result of proprietary hardware modules (hardware development) that modify the OSH asset (open-driven offer). The difference from the previous classification is that the market offer is not intellectual property based on hardware design information, but physical manufactured products. emQbit sells a physical board that is an improved version of an open source single board computer called ECB-AT91 v1.

5. Manufactured OSH (twenty seven market offers): this category includes companies that sell a physical manufactured hardware based on pure-open hardware designs that they own. This category includes more companies and seems to be the first step most organizations take to start making money with OSH.

6. Software tools for OSH (four market offers): includes companies that sell pure-closed software tools for testing and working with OSH assets that they own. Gaisler Research sells simulation and debug monitor software for Leon 3.

7. Hardware tools for OSH (nine market offers): this category is similar to the previous one, but these pure-close market offers are not software but hardware tools for an owned OSH asset. For example, Gaisler Research also sells development boards for Leon 3.

8. Dual-Licensing (one market offer): this way of making money with OSH is similar to the dual-licensing model used by some OSS companies. The idea is to offer the same pure-open hardware design that is owned by the company with two difference licenses. The first license is a GPL-like license, which is free but forces users to disclose the source code of any modified version of the original design. The second is a commercial license, which has a fee but allows buyers to conceal the source code of any modified version.

Conclusion

Some authors have cited the costs associated with manufacturing hardware as one of the biggest disadvantages of OSH in comparison with OSS. Users who download software code can compile and use it without any cost. Users who download source for an open microprocessor cannot use it unless they pay for its manufacture. However, most of the companies working with OSH have taken this disadvantage as a business opportunity by selling manufactured OSH.

Secondly, companies, as seen with Gaisler Research, may successfully combine more than one way of making money with OSH to diversify their sources of income. It is also possible for companies to expand revenues by combining OSH with OSS, especially in cases where symbiotic relationships between OSH and OSS projects exist.

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As an example, Corgan Enterprises offers training and consulting for both the USRP, an OSH project, and GNU Radio, an OSS project.

Additionally, this study shows that some ways of making money with OSS can be used with OSH. Dual-licensing, consulting, and customization of open source projects are such examples.

The classification presented here is just the first step towards a more systematic understanding of how companies build business models around OSH. More research is needed to study which models are likely to generate higher incomes and the profitability of the market offers related to OSH.

Edy Ferreira is an electronics engineer who has worked in the telecommunications industry. He is currently a graduate student in the M.A.S.c in Technology and Innovation Management at Carleton University and this article is based on preliminary results from his thesis about how companies make money with OSH.

Recommended Reading

Lambert, S. 2006. Do we Need a Real Taxonomy of e-business Models?
<http://business.flinders.edu.au/research/papers/06-6.pdf>

Apel, T., D'Urso, V., et al, 2006. Do Some Business Models Perform Better than Others?
<http://ccs.mit.edu/papers/pdf/wp226.pdf>

Pomerantz, Gregory. 2000. Business Models for Open Source Hardware Design
<http://homepages.nyu.edu/~gmp216/papers/bmfosh-1.0.html>

Salem, Mohamed & Khatib, Jamil, 2004. An Introduction to Open Source Hardware Development
<http://www.eetimes.com/news/design/features/showArticle.jhtml?articleID=22103383>

USES OF CREATIVE COMMONS LICENSES

"[W]e come from a tradition of 'free culture'—not 'free' as in 'free beer' (to borrow a phrase from the founder of the free software movement), but 'free' as in 'free speech,' 'free markets,' 'free trade,' 'free enterprise,' 'free will,' and 'free elections.'"

Lawrence Lessig,
founder of Creative Commons

A recent study examined the uses of Creative Commons (CC) licenses and their potential to resolve the conflict surrounding copyright law in the digital communications era. This article summarizes the major findings of that study, originally published in the *Journal of Computer-Mediated Communication* (<http://jcmc.indiana.edu/vol13/issue1/kim.html>).

Overview of Creative Commons Licenses

The CC provides a set of copyright licenses free for public use. A creator willing to release work under a CC license can go to the Creative Commons website (<http://creativecommons.org>) and make a selection among various license options with a simple mouse-click. Meanwhile, a user who is looking for content to use under less restrictive conditions than traditional copyright law can go to the Creative Commons website and find CC-licensed works by using the provided search engines or directories.

The birth of the CC is closely related to the concern that the attempts of copyright holders to protect ownership of their copyrighted material are threatening users' freedoms. The CC aims "to build a layer of reasonable, flexible copyright in the face of increasingly restrictive default rules" (<http://wiki.creativecommons.org/History>).

The Study Design

This study combined three different methods.

First, a content analysis of CC-licensed work was conducted from January 24, 2005 through February 5, 2005, to explore the uses of CC licenses. A sample of 1,000 CC-licensed web pages was examined. Second, a web-based survey of CC licensors was conducted to explore the uses and users of CC licenses. The first invitation to the survey was sent on February 9, 2005 to 617 CC licensors whose email addresses were available from the 1,000 CC-licensed web pages. The survey was closed on March 6, 2005, achieving a response rate of 45%. Last, four in-depth interviews with non-CC users representative of major content industries were conducted on March 16 in New York City and on March 18, 2005 in Washington D.C. The interviews explored the views of the industry representatives on copyright law, as well as their thoughts about CC licenses.

Characteristics of CC Licensors

Out of 280 CC licensors, 246 (almost 90%) indicated that they own their most recent CC-licensed work as an individual. Nine indicated that they own the work as a non-profit organization and another nine were as a corporation for profit. These results suggest that individual Internet users are the primary adopters of CC licenses. The fact that almost 90% of CC licensors own the copyrighted work as individuals suggests that it is easier to use CC licenses than to draft one's own license, especially for individual creators with limited resources. It also suggests that the widespread use of CC licenses represents a grassroots movement on the Internet.

The four most common occupations among CC licensors were computer professionals (28.6% of the survey participants), students (18.2%), artists (13.6%), and educators (9.3%).

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That computer professional was the most common occupation is interesting, yet understandable, given that CC licenses were inspired by the Free Software Foundation's GNU license. Computer professionals can also easily utilize the technical functions of CC licenses, because they are familiar with computer technology. That the second most common occupation was student suggests that CC licenses are popular among young people, many of whom are accustomed to creating and publishing on the Internet. Also, many college students have engaged in music file sharing, which could have made them aware of the conflicts over copyright protection on the Internet and prompted them to use CC licenses to endorse the public policy vision. It is interesting that 14% of the respondents were artists, as those representing major content industries do not necessarily think that CC licenses are in the best interests of artists.

CC licensors as a whole are not a group of creators for whom financial gain from their copyrighted works is critical to their livelihood. About 73% of CC licensors said they do not make money from their copyrighted works at all. About 19% of CC licensors said income generated from their copyrighted works is a supplementary source of income, followed by about 3% of CC licensors who said it is their main source of income. Of those who said that revenue from their copyrighted works was either a supplementary or their main source of income, about 15% said that the percentage of their total income that came from their copyrighted work was more than 30%.

However, CC licensors who consider themselves professional artists were somewhat different from CC licensors as a whole. While about 47% do not make money from their copyrighted works, the rest (53%) reported that they generate financial gain from their works.

About 39% of CC licensors who consider themselves professional artists indicated that revenue from their copyrighted works is a supplementary source of income, followed by 10% of CC licensors who said it was their main source of income, and 4.2% of CC licensors who said it was their only source of income. About 23% of those 35 CC licensors who consider themselves professional artists and whose income from their copyrighted income represents either a supplementary or the main source of income said the percentage of total income that came from their copyrighted work was more than 30%.

These findings suggest that the assumption that only novice creators or hobbyists license their works under CC licenses may not be correct. Although many CC licensors do not generate income from their copyrighted works, there is clear evidence that some make a living from their copyrighted works and therefore have a high degree of economic interest in these works. About 27% of CC licensors as a whole, and more than 50% of CC licensors who consider themselves professional artists, said that income generated from their copyrighted works is their supplementary, main, or only source of income.

Of the CC licensors who responded to the survey, 266 (73.6%) are men. One-hundred and six of the CC licensors (37.9%) completed graduate studies, and another 82 (29.3%) completed undergraduate degrees. In terms of income, CC licensors are a diverse group; no single category of income describes more than 20% of them. The respondents had a very high level of computer skills. On a five-point scale on which 5 means "very experienced," the CC licensors indicated their computer skill level as 4.74, on average.

Private Interests that CC Licenses Protect

USES OF CREATIVE COMMONS LICENSES

What do CC licensors say about the private interests that must be protected in order for them to produce creative works? How do CC licenses serve those private interests, if at all? In the web-based survey, the CC licensors were asked several questions regarding their motivations to create and use CC licenses. First, a majority of the licensors (201, 71.8%) chose "love of creating/inner desire to create/fun/hobby" as the most important motivation for them to create, followed by 37 licensors (13.2%) who said "reputation/recognition from others." Six CC licensors (2.1%) indicated that producing creative works was part of their regular job, and five CC licensors (1.8%) said they created for financial gain. Seventeen CC licensors (6.1%) listed other reasons, such as informing the public, disseminating useful information, or a mix of reasons.

As their second most important motivation for creation, 164 CC licensors (58.6%) cited "reputation/recognition from others." Thirty-nine licensors (13.9%) chose "love of creating/inner desire to create/fun/hobby," followed by 30 (10.7%) who said they had other reasons. Among the other reasons specified, communicating and sharing ideas with others were most frequent. Eighteen CC licensors (6.4%) said financial gain was the second most important reason for their creation, followed by 10 (3.6%) who said creation was part of their regular job.

Next, the survey respondents were asked why they decided to use CC licenses. The main reason cited was belief in sharing, with 145 respondents (51.8%) selecting this response, followed by 72 (25.7%) who said they wanted to build their reputations by making their work widely available over the Internet. Twenty-five CC licensors (8.9%) used CC licenses because they expected that a wide dissemination of their work might bring future opportunities to make money.

Eighteen licensors (6.4%) specified other reasons; among these, 5 indicated that all of the given choices were equally important for them, and 3 said they chose CC licenses because they did not like the current copyright protection system. Another 3 said they chose CC licenses because they wanted to keep control over their work.

CC licensors were also asked whether they were satisfied with CC licenses. The licensors indicated their satisfaction as 4.25, on average, on a five-point scale on which 1 meant "completely dissatisfied," and 5 meant "completely satisfied." A high satisfaction with CC licenses was also evident in the responses to a question about whether the respondents planned to use a CC license for their future work. Only 6 (2.1%) indicated that they did not plan to do so.

These findings suggest that CC licenses serve the private interests of CC licensors. Further, CC licenses might work for three different groups of creators. The first is those who believe in the public policy vision of copyright; using CC licenses gives them personal satisfaction in that they are contributing to an intellectual commons. The second group consists of creators who prefer a wide dissemination of their creation without expecting compensation. The private interest that CC licenses serve for them is reputation or recognition from others. The third group prefers a wide dissemination of their creation and also hopes for monetary compensation in return. This group uses CC licenses with the hope to make money from their work in the future.

Public Interests that CC Licenses Provide

How do CC licenses serve the public interest?

USES OF CREATIVE COMMONS LICENSES

Because of the difficulty of finding people who have used CC-licensed work to ask them about the benefits they derived from CC-licensed works, the examination of public interests was done indirectly, in two ways. The first was to examine how CC license elements have been used and what types of CC-licensed works are available and under which CC licenses. The second was to ask CC licensors two questions from which public interests can be inferred.

CC licensors were likely to allow non-commercial uses and the production of derivative works. They also asked later creators to share subsequent works under the same license. About 70% of the CC-licensed works were licensed for non-commercial uses only. Over 80% of the CC-licensed works allowed for derivative works use, by virtue of not attaching the no derivative works license element. Among those CC-licensed works from which derivative works can be made, 71% of them attached the share alike element.

Table 1 summarizes the types of CC-licensed works available as well as how many of each type. The majority of works licensed under CC licenses (82.6% of the CC-licensed works) were in a text format. Blog (text only) was most common (44.1%), followed by blog text with photos (17.3%) and website (13.3%).

Public interests were also examined by asking two questions about the CC licensors' experiences: i) whether anyone has ever contacted CC licensors regarding their CC-licensed works; and ii) whether CC licensors have used others' CC-licensed works. Ninety-four respondents (33.6%) said that others had contacted them for their CC-licensed works. Of those 83 who gave reasons, 66 respondents said that others had contacted them for permission to use or republish their work elsewhere.

Table 1: Types and Frequencies of CC-licensed Works

Types of Work	Frequency
<u>Text:</u>	826 (82.6%)
Blog (text only)	441 (44.1%)
Blog (text with photo)	173 (17.3%)
Website	133 (13.3%)
Other Text (book, article, essay, documentation)	74 (7.4%)
Educational Material (lesson plans, course packets)	5 (0.5%)
<u>Mixture of two or more work types:</u>	81 (8.1%)
Blog and Photo	51 (5.1%)
Website and Photo	23 (2.3%)
Other Multimedia Content	7 (0.7%)
Image (photo, illustration, design)	53 (5.3%)
Audio (music, speech)	20 (2.0%)
Video (movie, footage)	6 (0.6%)
Other (software, computer tool)	14 (1.4%)
<u>Total:</u>	1,000 (100%)

USES OF CREATIVE COMMONS LICENSES

Eight of the licensors said they had received feedback, comments, or thank-you notes regarding their CC-licensed work; 3 said they had received questions about CC licenses; and 6 reported other reasons such as "to offer me a job," "proposals of new musical projects," and "interviewed for a book." That over 30% of the survey participants had heard from others suggests that the public has been using CC-licensed works. Moreover, the major reason that others contacted them was to request permission to re-use the CC-licensed works.

This clearly indicates that the CC has contributed to the growth of a cultural commons that the public can, and does, use. Furthermore, CC-licensed works facilitated later creations by the CC licensors surveyed. One-hundred and thirty-nine (49.6%) said they had used work issued by others under CC licenses.

Further Discussion and Conclusions

The findings suggest that CC licenses are flexible in meeting the needs of creators in the digital age. First, the CC assumes that creative works build on the past. To encourage collaborative creative activities, CC licenses were designed in a way that encourages re-uses of copyrighted work. Second, in the web-based survey, CC licensors identified diverse private interests that must be protected in order for them to produce creative works. The respondents were also highly satisfied with CC licenses that served their diverse private interests. Third, the study found that the CC has served the public interest by providing a pool of cultural works that everyone can use and which facilitates later creations.

The findings also suggest that some of the assumptions held by interviewees representing major content industries regarding CC licenses are not correct.

These incorrect views can be summarized as follows: i) copyright owners would not want less protection than the law allows them to have; ii) CC licenses might be useful in certain instances, but copyright owners of commercially viable works don't use CC licenses; and iii) the ability to build one's own copyright through CC licenses has always been possible through individual contracts and licenses under copyright law.

The findings of this study contradicted these three views. First, this study found that various types of copyright owners want less than the full protection provided by traditional copyright law. They chose different CC license elements according to their different needs. For example, artists' choices of CC license elements were different from those of CC licensors with other occupations. Also, the majority of CC licensors acknowledged their intellectual debts to other authors. To them, allowing later authors to make derivative works from their original works under CC licenses was more important than exercising full control under copyright law.

Second, it is true that financial gain from copyrighted works is not critical for CC licensors as a group. Many create because of a love of creating, and many share their works because they believe in sharing. Others create to be recognized by others; they distribute their works widely under CC licenses to build reputation. However, it is not the case that CC licensors do not produce commercially viable creative works and there are those who choose CC licenses to market their works as commercially viable products.

With regard to the third point: while designing one's own copyright may always have been an option, the CC has made it easily available to everyone.

USES OF CREATIVE COMMONS LICENSES

Almost 90% of CC-licensed works were owned by individual creators. The widespread use of CC licenses among individuals indicates that CC licenses are grassroots legal tools for many Internet users. The CC has also enhanced the visibility of copyright options on the Internet. Now people can easily find copyrighted works that they can use under certain conditions, because the conditions are marked with standardized digital labels.

In conclusion, the CC has differentiated between kinds of creators in the digital era and provided them with various freedoms. Diverse digital creators can explore and use CC licenses according to their private interests, instead of being fearful of massive copyright infringement and instituting restrictive copyright protection mechanisms. The CC has raised public awareness about how copyright is related to creativity and freedom. It has spurred creation by dispersed creators who meet and rely upon each other. In these respects, the CC has contributed to the growth of a cultural commons from which everyone can benefit.

Acknowledgments

I am grateful to the CC licensors who participated in the survey and to the institutional representatives who participated in the in-depth interviews. I also thank Trevor LaClair, Master's Candidate at Hawaii Pacific, for his helpful suggestions for this article.

Minjeong Kim is an assistant professor and graduate program chair in the College of Communication at Hawaii Pacific University. Her research interests include copyright law, communication law, especially First Amendment issues in cyberspace, and digital media.

“Business ecosystems surround, permeate, and reshape markets and hierarchies. Managers establish business ecosystems to coordinate innovation across complementary contributions arising within multiple markets and hierarchies.”

James F. Moore

<http://tinyurl.com/5j7jux>

On March 28, 2008, Tony Bailetti, Director of Ontario’s Talent First Network, launched Carleton University’s TIM Lecture Series (<http://tinyurl.com/3dsq45>) with a presentation entitled Ecosystem Approach to the Commercialization of Technology Products and Services. The slides from the presentation are available from <http://tinyurl.com/6grtke>.

The TIM Lecture Series provides a forum to promote the transfer of knowledge from university research to technology company executives and entrepreneurs as well as research and development (R&D) personnel. This conference report presents the key messages and insights from the three sections discussed during the inaugural presentation.

Key Problems Faced by Technology Companies

Section 1 of the presentation discussed common problems faced by all technology companies when attempting to profit from the commercialization of their technology products and services. These are not new problems and are not unique to companies engaged in open source. However, we are searching for a new way to address these three key problems. The three key problems discussed are: i) managing interdependencies; ii) accelerating adoption; and iii) creating and appropriating value.

It should be noted that a technology company is part of an ecosystem, whether it chooses to recognize it or not.

Managing interdependencies is important as every company depends upon the deployment of suppliers’ and complementors’ offers, any of which can close a window of opportunity. For example, if each of five suppliers has an 80% chance of being ready at time T, the chances of all five being ready at that time are .33% ($0.8 * 5$). This formula applies to interdependencies among companies as well as interdependencies among functional groups within a company. For example, it is possible for the joint probability of functional groups being ready at the same time to be less than the joint probability of the company and its external partners being ready at the same time.

Fundamentals of Business Ecosystems

Section 2 contrasted three approaches to address the three key problems: market, hierarchy and ecosystems. The market approach focuses on the transactions of goods and the hierarchy approach focuses on the control over activities that produce goods. The lecture argues that the ecosystem approach is best suited to solve the three key problems identified in section 1.

A business ecosystem is defined by James F. Moore (http://en.wikipedia.org/wiki/Business_ecosystem) as "an economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organizations also include suppliers, lead producers, competitors, and other stakeholders. Over time, they co-evolve their capabilities and roles, and tend to align themselves with the directions set by one or more central companies."

"Those companies holding leadership roles may change over time, but the function of ecosystem leader is valued by the community because it enables members to move toward shared visions to align their investments and to find mutually supportive roles."

To exist, a business ecosystem requires leadership, alignments with a vision for the future, and the creation of benefits for customers. Creating value for customers is at the centre of an ecosystem. An ecosystem is a community comprised of companies, organizations and individuals that interact to deliver products and services that their target customers value. In an ecosystem, the community is anchored around a foundation platform. Over time, members' capabilities and roles become mutually supportive. Members align themselves with directions set by organizations in leadership positions.

An agreed-upon foundation platform is required to keep the costs of coordination low. The foundation platform is the combined base of: i) technologies; ii) architectures, designs and assets used to build market offers; iii) components, products and services; iv) contracts; and v) processes that anchor the economic community. Leadership structures for ecosystems are materially different from business clusters, networks, associations, alliances, and outsourcing. At one end of the spectrum is the leadership structure that focuses on serving the public, such as seen with Linux. At the other end of the spectrum is the leadership structure that focuses on serving paying members; an example is the SCOPE Alliance (<http://www.scope-alliance.org/>).

It was noted that a business ecosystem anchored around an open source project is more than the community of developers who contribute code.

This business ecosystem includes the customers, intermediaries, and the complementors that use the open source asset as well as the dynamics of how these players interact with one another.

Other section 2 key messages included:

- an ecosystem enables trust among members as trust is the foundation of members' commitment to the ecosystem
- to succeed in today's economy, a company must coordinate innovation across diverse companies globally on a continuous basis
- ignore the business ecosystem of which you are a part of at your peril

Ecosystem Approach to Commercialization

Section 3 discussed how solving the three problems identified in section 1 requires a company to compete for leadership positions, draw on a global talent pool, and develop its capability to collaborate. A company must earn the right to join an ecosystem. It is not like a cluster membership where a company simply pays its annual membership fee to be part of some organization. For example, the Eclipse ecosystem is a meritocracy with a documented process new members must follow in order to become contributors.

Other key messages from section 3 include:

- the ecosystem has to trust you and you need to trust the ecosystem
- each member must ensure they decrease the coordination costs; if the cost of interacting with your company is too high, you will be ignored

- you do not have to create a new ecosystem; instead, improve the ecosystem that exists
- two sets of activities must be defined: i) activities that the company undertakes to create value in the ecosystem; and ii) activities the company undertakes to appropriate a portion of the value created
- giving assets or information away for free is a strategy which decreases customers' willingness to purchase from your competitors and increases your position within the ecosystem

Invitation to Participate

OSBR readers are encouraged to contribute key messages and insights, references and suggestions for making the TIM Lecture Series world class. Details are at http://www.talentfirstnetwork.org/wiki/index.php?title=TIM_Lecture_Series. Readers in the Ottawa area are encouraged to register and attend future lectures in the series.

Tony Bailetti holds a faculty appointment in both the Department of Systems and Computer Engineering and the Eric Sprott School of Business at Carleton University, Ottawa, Canada. Professor Bailetti is the Director of the Talent First Network. Until September 2007, he was the Director of the Technology Innovation Management program. He has taught for the Executive M.B.A. program offered by Queen's University in Ottawa since 1996.

The State of Open Source Software and Corporate Software Development

"I believe that SaaS is a fundamental shift in software development and delivery and that it will be the defining mechanism for delivering new software applications in the future. Open source is revolutionary, but not for the user as much as for the developer. The user wants simplicity, and SaaS provides that."

Paul Gillin

<http://www.itbusinessedge.com/item/?ci=24174>

On April 16, Doug Levin, CEO of Black Duck Software, gave a presentation entitled The State of Open Source Software and Corporate Software Development. The slides from the presentation are available from <http://tinyurl.com/5k6oj6>. This conference report presents the key messages and insights from the three sections discussed during this presentation in the TIM Lecture Series.

Overview of Software Development

Section 1 of the presentation discussed how trends in software development have changed from the traditional waterfall method (http://en.wikipedia.org/wiki/Waterfall_model) to a more hybridized approach that mixes proprietary and open source code. This shift to software development that relies on open source software (OSS) entails benefits and risks. The key benefits include: i) lower cost of development; ii) adding the contributions of a community to an internal development group; iii) faster time to market; and iv) better code quality. The risks can be categorized into four types: i) code control; ii) operational; iii) complexity; and iv) security.

Customers of solutions delivered using open source are concerned about: i) managing feature creep and customer expectations; ii) poor documentation; iii) lack of support; and iv) hidden costs such as training, documentation, consulting, and license fees. Lowering the total cost of ownership (TCO) is about lowering the cost of providing a solution, not the cost of running code. Hidden costs should be included as part of the total cost of ownership equation.

Several key messages emerged from audience participation during this section of the presentation. These included:

- most OSS is based on software technologies which are commodities and OSS succeeds when it becomes a usable product, not just a project filled with code that runs
- pitfalls of mixed code development include: i) loss of intellectual property; ii) export regulations; iii) security vulnerabilities; iv) escalating support costs; v) software defects; vi) license rights and restrictions; and vii) injunctions
- the life cycle of an open source vendor (OSV) is 2-3 years longer than the life cycle of a proprietary company (i.e., 7-8 years to exit), to which venture capital firms in Boston and California have adjusted
- agile (http://en.wikipedia.org/wiki/Agile_software_development) programming methods sometimes cut out communications with users and prevent the incorporation of user feedback into the product
- in an engineering sense, open source code can not be considered components ready to be integrated because most are not packaged or have clean interfaces
- the decision to release proprietary code as OSS is complex. Many factors must be considered including: i) selection of an open source license, preferably an OSI approved license; ii) investment in staff, especially in community management and development; and iii) changes in a company's "DNA"
- the value of open source may be a function of our ability to mashup open source codes, web services, and home-grown code
- quality assurance for a final product now requires new techniques as product development has become a process of combining existing code with third party and OSS code
- OSS is now mainstream and innovators are combining OSS with services oriented architecture (SOA, http://en.wikipedia.org/wiki/Service-oriented_architecture)
- software development is part of a development ecosystem; a company that ignores its development ecosystem does so at its own peril
- code reuse is good engineering

Trends in Software Development

Section 2 discussed how the new software development trends are creating new business opportunities. The current trend is a move towards software as a service (SaaS, http://en.wikipedia.org/wiki/Software_as_a_Service) as it provides savings benefits similar to those provided by thin clients. The value propositions provided by SaaS and PaaS (platform as a service) are clearer than the value proposition of OSS (<http://tinyurl.com/6zmlcy>).

The value proposition of SaaS is driving the adoption of cloud computing (http://en.wikipedia.org/wiki/Cloud_computing), an alternative to local servers or personal devices handling users' applications. Essentially, in cloud computing the technological capabilities "hover" over everything and are available to users.

Other key messages from section 2 include:

- open source as SaaS may provide attractive business opportunities
- the importance of managing software license compliance in mixed development environments is increasing
- venture capital funding for open source has hit an all time high in the US but remains non-existent in Canada
- venture capitalists used to fund old business models which were sprinkled with a bit of "open source fairy dust", causing friction with OSS projects as the main business model was dual licensing. Today we have more mature business models and more venture capitalists who are savvy about open source
- revenue models for software sales are shifting away from perpetual licenses to subscriptions
- Microsoft through its share code initiative is slowly moving towards the OSS model

Overview of Black Duck Software

In section 3, Doug provided a brief overview of the services provided by his company. Black Duck Software (<http://www.blackducksoftware.com/>) helps companies: i) avoid the pitfalls of mixed code development; ii) manage development work flow; and iii) reveal the unknowns in their code base. Their flagship product, protexIP, allows customers to confidently manage software origins and obligations; audit the code base against the approved components and simplify code reviews and third party licensing. Black Duck does not indemnify its customers as it is impossible to operate a real time system that spiders the whole Internet. The company does provide a standard warranty on the use of its software.

Doug Levin is president and CEO of Black Duck Software. Prior to founding Black Duck in 2002, Levin served as CEO of MessageMachines (acquired by NMS Communications in 2002) and X-Collaboration Software Corporation (acquired by Progress Software in 2000). From 1995 to 1999, he worked as an interim executive or consultant to a range of software companies, including CMGI Direct, IBM/Lotus Development Corporation, Oracle Software Corporation, Solbright Software, Mosaic Telecommunications, Bright Tiger Technologies and Best!Software. From 1987 to 1995, Levin held various senior management positions with Microsoft Corporation, including heading up worldwide licensing for corporate purchases of non-OEM Microsoft software products. He is a graduate of the University of North Carolina at Chapel Hill and holds a certificate in international economics from the College d'Europe in Bruges, Belgium.

Upcoming Lectures in TIM Lecture Series

April 30:

Wireless Sensor Networks: Why and What
Thomas Kunz from Carleton University

May 7:

Privacy and Security in a Connected
World
Douglas King from Carleton University

May 14:

Next Generation IT: Life after Jurassic
Middleware
David Thomas from Bedarra Research
Labs

May 23:

Trends in Technology Marketing
Stoyan Tanev from Carleton University

June 4:

Building Technical Communities
Ian Skerrett from the Eclipse Foundation

Details of upcoming lectures and key
messages and references from past
lectures are available at

[http://www.talentfirstnetwork.org/wiki/
index.php?title=TIM_Lecture_Series](http://www.talentfirstnetwork.org/wiki/index.php?title=TIM_Lecture_Series)

Q. For the last 20 something years, we've been hearing about convergence, and how communications are coming together. Yet, we still have a huge number of devices doing similar but slightly different things in our everyday lives. Where are our Jetson-like devices, what will they look like, and will they be here soon?

A. One of the biggest problems with convergence is that it means so many different things to different people and different industries. It can mean getting all of your phone calls through one handset. It can also mean having one phone number that follows you around. Similarly, it can mean that you have one cable running to your house, which carries your television, phone, and Internet traffic.

These are just a few of the many meanings for convergence. Since there are so many meanings, people can be working towards "convergence" in completely opposite directions. Commercial interests naturally want you to use their vision of convergence, which almost always means that you are using only their services. In my local market, this is called bundling and is used to reduce the overall amount paid for individual services by buying a few together and saving as a bundle. But, was a savings of a few cents the intention of convergence? No.

Convergence was supposed to be about the simplification of our electronic world. In some cases, this has actually happened, to a degree. Before, there were 10 different types of connectors on computers, meaning you had to have the right cable for the right external piece. There were serial cables and parallel cables. Some pieces of equipment came with their own special card and cable. And laptops had special PCMCIA mini cards.

In practical terms, you needed a box of cables to accompany all of the various add-ons that you might want to connect to your various computers.

Then came USB, which quickly made the cable management job an order of magnitude easier. There are no more printer cables or modem cables and we now have somewhat interchangeable cables which simplify the job. USB isn't perfect as there are many different USB cable ends as well as devices of different speeds. But, practically it is much better than it was before. The USB story is quite illustrative of what we can expect after the dust settles in "convergence", if it ever does. It will be something that works, it might not work optimally but will be well enough to get by, and it will be better than what we have now. The big question is "why is it this way"? This is a complicated question to answer, and it's best to pick out the parts.

Phone companies aren't really helped by convergence, and it can be argued that conventional phone companies can be hurt by it. Convergence in phone technologies would mean that you could use the best method to automatically route a call, regardless of your location. Imagine picking up a call on the wireless phone in your office, which is integrated into your internal phone system, and allows you to leave your office and track down a technical person to clarify a customer question. Or, it's almost lunch time, but instead of calling the customer back or playing telephone tag, you leave the office to get lunch. While you are on your way out of the building, your office based network sees your signal strength dropping and automatically establishes and hands off your call to your cell phone provider, which then connects to your same handset, syncs and then transfers the call from local to cellular radios.

Since you are not in the office, incoming phone calls will try your cellphone automatically, and you can see if it's a call from an important client or just a telemarketer wanting to sell you something.

Why isn't this form of convergence here? The technology is here, and while it might not be perfect, it would be useable. However, it would take a partnership between phone companies to allow the seamless handoffs, and that is the hard part. From the cellular perspective, it would be far more profitable to just have every employee use a cellphone all the time, thus being charged for minutes on their network. Why would they want to give up portions of a call, when they can profit from the entire call?

Another major obstacle is that cellular service isn't uniform, especially in buildings, and there can be interference and dead spots. To address this, some carriers have been rolling out picocells, or very tiny cell towers, which can eliminate dead spots in buildings. While there are some businesses that can benefit from this technology, it puts you back on the cellular bill. This technology is coming, but it's coming slowly.

Convergence in last mile (http://en.wikipedia.org/wiki/Last_mile) operations is moving at a slower pace. Partly this is due to regulatory issues, where there are laws against any one company owning too much media in any one market. But it's also partly due to ignorance and apathy on the part of customers. When the bulk of the Internet was accessed by modem, speeds in both directions were equal until we reached 33,600 bps. At 56K, the traffic sent to us was faster than what we could send, due to limitations of the line: the 56K could only be achieved in the digital to analog direction, and the length of copper wire from the conversion point to modem was the determining speed factor.

Cable modem and DSL followed in this vein, progressively changing and widening the imbalance between uploading and downloading. Then there is the recent fuss over bandwidth caps, throttling and net neutrality (http://en.wikipedia.org/wiki/Net_neutrality). Caps are the practice of limiting the overall amount of downloading within a month, while throttling is the act of allowing only a certain amount of one type of traffic through at any point in time. Net neutrality concerns this discrimination against certain traffic, in either a monetary or restricted way.

In fact, in some revolutionary technologies, we've seen more divergence than convergence. Perhaps people have forgotten Metcalfe's law (http://en.wikipedia.org/wiki/Metcalfe%27s_law) and really believe that there is more value in their isolated network than in a connected network. The biggest new communication tool is instant messaging (IM), and it's littered with proprietary networks and incompatible network protocols. It's ironic that IM never really needed to be an island, since in essence it's a fancy text messaging system. There could have been far reaching compatibility as there were already some very good models to base the clients on.

But, why didn't it happen? Because companies were more worried about how to make money, and not worried enough about adding value for the user. IM is very useful, and can cut out the telephone tag game and get real information across. However, as it is now, with everyone using a different IM, you either need to run 6 clients, or have a client that can run all 6 protocols. And while there are a few good clients that are multiprotocol, there are two problems. First, clients are solving what is really a server problem: it's much easier and more effective to get the servers to communicate.

Second, once you incorporate multiple clients, there are some features that some networks will support that others won't. Invariably, you'll want to do something, be it group chat or video conferencing, and either the client has poor or no support, or it can't be done over multiple networks.

Last in this equation is email. While nearly everyone has at least one email address, integration between email and any other system is either proprietary or non-existent. We have many ways of exchanging email, many email server and client applications, and lots of additional features like spam filters and virus scanners. But how many people can check and file their voicemail with their email? The technology is here, but the closest widely deployed application is "visual voicemail" with the iPhone.

Now, let's turn to how to push convergence forward. First, it's important to ask questions of your suppliers and vendors. What are they offering that can simplify and streamline your communications process? How much will it cost, and what are the cost savings and process savings benefits? Next, what are your service providers doing to enable and empower you to have choice and flexibility in your communications? While the power of the market isn't always perfect, it can be used to put pressure on the companies we do business with to offer more competitive and more flexible features.

We have to try and push for ease of use, along with portability between applications and carriers. Maybe then we'll be able to carry around only one device with us, but still get to choose which kind of device it is. Hopefully the future isn't too far away.

Open Source for Ontario Companies

Lead: Rowland Few

Open Source for Ontario companies comprises an inventory of Ontario based open source projects and companies using open source projects. It comprises a lead project initiated by the Talent First Network. Please contact Rowland Few (rfew@sce.carleton.ca), if you are interested in participating.

Background

The commercial use of open source is often hindered by a lack of awareness of the open source projects available and which are being successfully used. The inventory of projects listed under Open Source for Ontario Companies aims to highlight the health, diversity and adoption of open source across Ontario. The intent is to simplify decision making by showcasing the projects used in Ontario, ultimately reducing the initial search criteria for suitable projects and therefore the time to adoption and use of open source assets.

Open Source for Ontario Companies

In this lead project, the goal is to showcase the creation and adoption of open source software projects by companies and teams in Ontario, Canada. The inventory includes profiles of open source projects and the companies that use the open source projects, as well as statistics on project usage by companies. The inventory can be used as a reference point for Ontario companies and open source communities to aid in choosing a suitable open source project for use. It also aims to provide insight that open source support is available in Ontario.

The initial list (http://www.talentfirstnetwork.org/wiki/index.php?title=Open_Source_for_Ontario_companies) has been compiled with the support of open source companies in the Talent First Network's ecosystem. If your open source project or company is located in Ontario, we ask for your support by contributing to this inventory.

Rowland Few is a member of the Talent First Network where he is responsible for the Company Affiliates program and aims to assemble an ecosystem comprised of 50 companies across Ontario with business models that benefit from Open Source to generate cash and reduce development costs. Rowland has 18 years Telecom experience across North America, Europe and China with 10 years management (covering Engineering, Program Management and Business Development) at Ottawa based start-ups. He graduated from the Queens' Executive MBA program in May 2004.

CALL FOR PROPOSALS

The goal of the Talent First Network Proof of Principle (TFN-POP) is to establish an ecosystem anchored around the commercialization of open source technology developed at academic institutions in Ontario.

The priority areas are the commercialization of open source in:

- Mapping and geospatial applications
- Simulation, modeling, games, and animation
- Conferencing
- Publishing and archiving
- Open educational resources
- Social innovation
- Business intelligence
- Ecosystem management
- Requirements management

Expected Results

The TFN-POP is expected to:

- Establish a healthy ecosystem anchored around the commercialization of open source assets
- Maximize the benefits of the investment in the Talent First Network by the Ministry of Research and Innovation
- Accelerate the growth of businesses in Ontario that use open source assets to compete

Eligibility to Receive Funds

Individuals eligible to receive funds are faculty, staff, and students of universities and colleges in Ontario.

Budget and Size of Grants

A total of \$300,000 is available. Applicants' requests should not exceed \$30,000.

The TFN-POP may provide up to 50 percent of total project costs.

Criteria

Proposals will be judged against the following five criteria:

- Strength and novelty of open source technology proposed
- Extent of market advantage due to open source
- Project deliverables, likelihood that the proposed activities will lead to deliverable completion on time, and effectiveness of the plan to manage the project
- Track record and potential of applicants
- Extent of support from private sector

Application

The electronic version of the application received by email at the following address: TFNCompetition@sce.carleton.ca will be accepted as the official application. The email must contain three documents: a letter of support, project's vitals, and a project proposal.

CALL FOR PROPOSALS

Letter of support: (maximum 2 pages) a letter, signed by the person responsible for the Technology Transfer Office or Applied Research Office of the academic institution that proposes to host the project and the faculty member or student who will lead the project, must be included. This letter should describe the nature of the support for the project from the academic institutions, companies and other external organizations.

Project's vitals: (maximum 1 page) The project's vitals must include:

- Person responsible for applied research or technology transfer at the college submitting the proposal: name, mailing address, telephone number, and email address
- Project leader: name, mailing address, telephone number, and email address
- Team members: names, mailing addresses, telephone numbers, and email addresses
- Budget: Total budget, with TFN's contribution and that of other organizations
- TFN investment: TFN contribution broken down by payments to students, payments to faculty, and payments to project awareness activities

Project proposal: (maximum 5 pages) Project proposal must include the following:

- Benefits: (maximum 1/2 page) Description of the benefits of the proposed project, and an overview of the context within which the project is positioned
- Advantage: (1/2 page) Market advantage provided by open source assets used in the project

- Information on applicants: (maximum 1.5 pages) Background information to help assess the track record and potential of the people who are key to the project and the college
- Project plan: (maximum 2.5 pages) Description of the deliverables (what will be delivered and when); key project activities; nature of the involvement from companies, and other external organizations; and plan to manage the project

Evaluation & Deadline

Proposals will undergo review by the Expert Panel established by the TFN-POP. The Chair of the Panel may contact the applicants if required. A final decision will be communicated to the applicants within 30 days after the email with the official application is received.

There is no deadline. Applications will be evaluated on a first-come basis until the \$300,000 available is committed.

Contacts

Luc Lalande: Luc_Lalande@carleton.ca

Rowland Few: rfew@sce.carleton.ca

About the Talent First Network

The Talent First Network (TFN) is an Ontario-wide, industry driven initiative launched in July 2006 with the support of the Ministry of Research and Innovation and Carleton University. The objective is to transfer to Ontario companies and Open source communities: (i) Open source technology, (ii) knowledge about competing in Open source environments and (iii) talented university and college students with the skills in the commercialization of Open source assets.

The Emergence of Governance in an Open Source Community

Copyright: Siobhan O'Mahony & Fabrizio Ferraro

From the Abstract:

We have a good understanding of organizing processes in bureaucratic organizations, but not in community forms. More specifically, we know little about how communities producing collective goods govern themselves. With a multi-method study of one open source software community, we found that members developed a shared basis of formal authority, but limited it with democratic mechanisms that enabled experimentation with shifting conceptions of authority over time. When members settle on a shared conception of authority, it is more expansive than their original design. This finding is reinforced with a statistical test of the predictors of leadership. By blending bureaucratic and democratic mechanisms, the governance system designed was able to evolve with the community's changing conceptions of authority.

http://www.business.ualberta.ca/tcc/documents/TII_3_OMahoney_Ferraro_final.pdf

The Australian Open Source Industry & Community Report 2008

Copyright: Waugh Partners

From the Introduction:

In our interaction with business, government, education and the Open Source industry, we have found a sharp disconnect between the perceptions held by the market, and the reality of Open Source in Australia. We knew that our country has produced some of the world's most influential Open Source innovators and projects. We knew that clever, home-grown Open Source companies were succeeding in local and export markets. But we didn't have the numbers. Until now.

<http://census.waughpartners.com.au/census-report-2008-r1.pdf>

Mozilla Foundation Invests at Seneca College

March 6, Toronto, ON

Seneca College President Dr. Rick Miner today announced a \$100,000 (USD) grant from the Mozilla Foundation. The grant supports on-going collaboration between Mozilla and Seneca's Centre for Development of Open Technology. At the Centre for Development of Open Technology, Seneca faculty and students contribute to the development of Mozilla software products such as the Firefox web browser. This funding will be used to create new curriculum, expand what already exists and prepare the Mozilla curriculum for use by other academic institutions.

<http://www.senecac.on.ca/cms/media/newsdetail.jsp?mediaID=136>

Eclipse Expands Open Source Technologies

April 15, Ottawa, ON

The Eclipse Foundation today announced new initiatives to develop open source technologies for embedded and mobile developers. The new initiatives, part of the Eclipse Device Software Development Platform (DSDP) Project, make it easier for developers to debug, manage and deploy software on embedded and mobile devices. These new projects build on the continued success the Eclipse community has had in creating open source technology for the embedded and mobile industry.

http://www.eclipse.org/org/press-release/20080415_embedded.php

Open Source Health Collaboration Announced

April 18, Australia, Canada, UK, and US

Open Health Tools (OHT) has announced a collaborative effort between national health agencies, major healthcare providers, international standards organizations and companies from Australia, Canada, the UK and the US to develop common healthcare IT products and services. The initiative aims to develop a suite of tools, including a common health interoperability framework, as well as adapters and transformers that will enable users to bring legacy data into an interoperable network. The results of the collaborative effort will be available under an open source agreement so anyone can use them.

<http://www.openhealthtools.org/Documents/PressReleases/OHT%20Foundation%20Final.pdf>

UPCOMING EVENTS

April 27-30

Canadian Network for Innovation in Education

Banff, AB

The Canadian Network for Innovation in Education (CNIE) is proud to present its inaugural conference, hosted by Athabasca University. CNIE is a national, bilingual association committed to excellence in the development, promotion and use of technologies, practices and policies that foster enhanced access to learning for all students in all contexts, especially in K-12 and post-secondary education.

<http://www.athabascau.ca/CNIE-RCIE>

April 29-30

CopyCamp

Toronto, ON

CopyCamp is a place to meet people making art and making waves, an opportunity to discover how the Internet can work for artists and fans, and a chance to debate the value(s) of copyright with some of the key players. It is an event in which participants drive the programming, and debates are genuine round-tables. There are no observers: everyone has something to offer and is expected to contribute.

<http://copycamp.ca/>

May 12-13

Copyright in Canada

Toronto, ON

The road to reforming Canada's copyright laws to keep pace with the technology of the digital era has been slow and tortuous. The last attempt in 2005, which would finally have brought Canada's copyright laws in line with those of other countries, attracted criticism from some who felt it either went too far in protecting creators' rights or not far enough. The federal government is poised to introduce yet another Bill to bring Canada's copyright laws into the 21st century – a Bill that has already attracted considerable controversy even before being introduced. This conference intends to offer an examination and discussion of the many key areas that have emerged since the last Bill.

http://www.insightinfo.com/index.cfm?ci_id=25317&la_id=1

May 14

WebCom 2008

Montreal, QC

Attend to learn more regarding: the impact of social web on your marketing strategies, emerging technologies and their impact on Enterprise 2.0, and how these new tools transform communication.

<http://www.webcom-montreal.com>

UPCOMING EVENTS

May 16-17

BSDCan

Ottawa, ON

BSDCan, a BSD conference held in Ottawa, Canada, has quickly established itself as the technical conference for people working on and with 4.4BSD based operating systems and related projects. The organizers have found a fantastic formula that appeals to a wide range of people from extreme novices to advanced developers.

<http://www.bsdcn.org>

May 18-21

International Conference on Digital Government Research

Montreal, QC

This conference is hosted by the Digital Government Society of North America (DGSNA) and CEFRIO. DGSNA an organization of professionals and scholars who share an interest in furthering the development of democratic digital government. CEFRIO (Centre francophone d'informatisation des organisations) is a liaison and transfer centre comprising over 160 university, industrial and governmental members and 57 associate and guest researchers. We welcome government professionals, managers, researchers, educators, students, and others interested in the linkages among democratic processes, government management, innovation, information, and technology.

<http://www.dgo2008.org/>

May 18-20

International Conference on Information Resources Management

Niagara Falls, ON

The International Conference on Information Resources Management (Conf-IRM) provides a peer-reviewed forum for researchers from across the globe to share contemporary research on developments in the fields of information systems and information management. It seeks to promote effective and vibrant networking among researchers and practitioners from around the world who are concerned about the effective management of information resources in organizations.

<http://www.sprott.carleton.ca/conf-irm>

May 20

OSBootCamp 5: Relational Database Management Systems

Ottawa, ON

OSBOOTCAMP5 will cover Relational Database Management Systems. Come and hear industry experts present talks on relational database management systems and database driven applications.

<http://www.osbootcamp.com/index.php?page=osbc5>

UPCOMING EVENTS

May 20-22

meshU & mesh

Toronto, ON

Canada's premier Web conference is a chance to connect with people who are as excited about the potential of the Web as you are — people who want to know more about how it is changing the way we live, work and interact with the world. And you won't just connect with them in the hallways — at mesh, every panel and workshop is interactive.

<http://www.meshconference.com/>

May 22-23

PGCon

Ottawa, ON

PGCon is an annual conference for users and developers of PostgreSQL, a leading relational database, which just happens to be open source. PGCon is the place to meet, discuss, build relationships, learn valuable insights, and generally chat about the work you are doing with PostgreSQL. If you want to learn why so many people are moving to PostgreSQL, PGCon will be the place to find out why. Whether you are a casual user or you've been working with PostgreSQL for years, PGCon will have something for you.

<http://www.pgcon.org/2008/>

June 2-3

OSBOOTCAMP 6: Geospatial Software

Ottawa, ON

This will be a two day event focusing on open source geospatial software. Come and hear industry experts present talks on web mapping, GIS analysis, OSGEO projects and more.

<http://www.osbootcamp.com/index.php?page=osbc6>

June 2-5

Geotec

Ottawa, ON

The GeoTec Event provides a unique gathering place for geospatial technology professionals from all disciplines to interact and learn from each other's experience and knowledge. The program is designed to help you discover cutting-edge geospatial technology solutions from diverse application areas.

<http://www.geoplance.com/ME2/direct.asp?sid=F1E958ECB4E84C1C97324D4851580DDB&nm=GeoTec+Event>

The goal of the Open Source Business Resource is to provide quality and insightful content regarding the issues relevant to the development and commercialization of open source assets. We believe the best way to achieve this goal is through the contributions and feedback from experts within the business and open source communities.

OSBR readers are looking for practical ideas they can apply within their own organizations. They also appreciate a thorough exploration of the issues and emerging trends surrounding the business of open source. If you are considering contributing an article, start by asking yourself:

1. Does my research or experience provide any new insights or perspectives?
2. Do I often find myself having to explain this topic when I meet people as they are unaware of its relevance?
3. Do I believe that I could have saved myself time, money, and frustration if someone had explained to me the issues surrounding this topic?
4. Am I constantly correcting misconceptions regarding this topic?
5. Am I considered to be an expert in this field? For example, do I present my research or experience at conferences?

If your answer is "yes" to any of these questions, your topic is probably of interest to OSBR readers.

When writing your article, keep the following points in mind:

1. Thoroughly examine the topic; don't leave the reader wishing for more.
2. Know your central theme and stick to it.
3. Demonstrate your depth of understanding for the topic, and that you have considered its benefits, possible outcomes, and applicability.
4. Write in third-person formal style.

These guidelines should assist in the process of translating your expertise into a focused article which adds to the knowledgeable resources available through the OSBR.

Upcoming Editorial Themes

May 2008	Enterprise Readiness
June 2008	Security
July 2008	Accessibility
August 2008	Education
September 2008	Social Innovation

Formatting Guidelines:

All contributions are to be submitted in .txt or .rtf format and match the following length guidelines. Formatting should be limited to bolded and italicized text. Formatting is optional and may be edited to match the rest of the publication. Include your email address and daytime phone number should the editor need to contact you regarding your submission. Indicate if your submission has been previously published elsewhere.

Articles: Do not submit articles shorter than 1500 words or longer than 3000 words. If this is your first article, include a 50-75 word biography introducing yourself. Articles should begin with a thought-provoking quotation that matches the spirit of the article. Research the source of your quotation in order to provide proper attribution.

Interviews: Interviews tend to be between 1-2 pages long or 500-1000 words. Include a 50-75 word biography for both the interviewer and each of the interviewee(s).

Newsbytes: Newsbytes should be short and pithy--providing enough information to gain the reader's interest as well as a reference to additional information such as a press release or website. 100-300 words is usually sufficient.

Events: Events should include the date, location, a short description, and the URL for further information. Due to the monthly publication schedule, events should be sent at least 6-8 weeks in advance.

Questions and Feedback: These can range anywhere between a one sentence question up to a 500 word letter to the editor style of feedback. Include a sentence or two introducing yourself.

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The Technology Innovation Management (TIM) program is a master's program for experienced engineers. It is offered by Carleton University's Department of Systems and Computer Engineering. The TIM program offers both a thesis based degree (M.A.Sc.) and a project based degree (M.Eng.). The M.Eng is offered real-time worldwide. To apply, please go to: <http://www.carleton.ca/tim/sub/apply.html>.