OSBR.CA

The Open Source Business Resource

OCTOBER 2009

OCTOBER 2009

PUBLISHER:
The Open Source Business Resource is a monthly publication of the Talent First Network. Archives are available at the website:
http://www.osbr.ca

EDITOR:
Dru Lavigne
dru@osbr.ca

ISSN:
1913-6102

The editorial theme for the October issue of the OSBR is arts & media. While code development is often described as an art form, it is less common to see a connection between traditional arts and open source. The articles in this issue explore that connection and the nascent possibilities for content creators, user communities, and entrepreneurs.

John Bell from the University of Maine New Media department explores how open source tools and philosophies can be adapted to facilitate other forms of distributed creative endeavours. He introduces two tools developed by the Still Water Lab, The Pool and the Variable Media Questionnaire, and describes how several of the ideas used in software development have influenced Still Water's approach to making tools that support artistic production.

Karen Opas-Lanouette, editor for Ucreate Media, discusses the historic genesis of one company's development of a portal and platform system that enables creators and their fans to work collaboratively between different mediums. Her examination includes how the company met the challenges that arose and which are common to many startups.

Anthony Whitehead, Director of the Carleton University School of Information Technology, examines how open source tools and content can be used throughout the entire process of film creation. He describes many of the tools which are available for every step in the production pipeline.

Aaran Duncan, owner of Digital Deceptions, and Glenn McKnight, owner of Global Catalysts Consulting Service, explore the increasingly intersecting worlds of Social Media, mobile, and open source. They describe how Social Media has the potential to change the way communities use and create open source.

As always, we encourage readers to share articles of interest with their colleagues, and to provide their comments either online or directly to the authors. We hope you enjoy this issue of the OSBR.

The editorial theme for the upcoming November issue of the OSBR is "co-creation" and the guest editor will be Stoyan Tanev from the University of Southern Denmark. Submissions are due by October 20--contact the Editor if you are interested in a submission.

Dru Lavigne

Editor-in-Chief

dru@osbr.ca

Dru Lavigne is a technical writer and IT consultant who has been active with open source communities since the mid-1990s. She writes regularly for BSD Magazine and is the author of the books BSD Hacks, The Best of FreeBSD Basics, and the upcoming Definitive Guide to PC-BSD.

New Media Art is an umbrella term which generically describes art forms that incorporate an element of technology that was invented, or began integration into society, during or after the 1950s. The output of the New Media Art genre ranges broadly from conceptual to virtual art, from performance work to installation pieces, and from contemplative to dynamic to interactive art, games and devices. The umbrella term has also found itself wearing different labels for the different communities that found themselves working in the medium. Commonly used terms include digital art, computer graphics, computer animation, virtual art, Internet art, interactive art technologies, visual effects, dynamic art, and streaming media. The term differentiates itself from "old media arts", such as traditional painting and sculpture, which are often considered cultural objects that define great works in the medium.

Trevor Barr specified some standing principles (http://www.questia.com/PM.qst?a=o&d=58429881) that help define new media forms using the mnemonic three Cs: Computing, Communication and Content. Any combination of these three Cs leads to technologies that contribute to the New Media Art revolution. Examples include:

- communications networks + computing = mobile phones
- communications networks + content = cable TV and interactive TV
- content + computing = CD-ROM and DVD

The culmination of these Cs can be seen in Youtube, the World Wide Web, and interactive gaming. But it is fair to say that the full and complete realization of New Media Art has yet to be seen, and that it makes for an exciting future.

This issue of the Open Source Business Resource examines how open source tools, ideas and concepts have helped to shape the New Media Art world and how they are opening the doors for New Media artists. The articles cover the creation and preservation of New Media content, open source tools for creation, production, and management of New Media, and an examination of Social Media and user generated content.

Anthony Whitehead

Guest Editor

Anthony Whitehead is a Professor in, and the Director of, The Carleton University School of Information Technology. As a faculty member with the Interactive Multimedia and Design Program he has created art based media installations featured at SIGGRAPH, installed in the Museum of Civilization, featured in International visual effects festivals and supervised interactive installation developments at the School.

"We need not destroy the past; it is gone. At any moment it might reappear and seem to be and be the present. Would it be a repetition? Only if we thought we owned it, but since we don't, it is free and so are we."
John Cage, Lecture on Nothing

The open source community has developed a number of tools and philosophies to assist in distributed software development. The Still Water Lab (http://newmedia.umaine.edu/stillwater/) at the University of Maine believes that these tools and philosophies can be adapted to facilitate other forms of distributed creative endeavours. It has developed two tools that reinterpret the ideas used in open source software through the lenses of artistic creation and preservation: The Pool (http://newmedia.umaine.edu/pool) and the Variable Media Questionnaire (http://variablemedia.net/). This article discusses how several of the ideas used in software development have influenced Still Water's approach to making tools that support artistic production.

Saving Abandoned Software Through Open Source

In December of 2000, game publisher Activision released Call to Power II, the sequel to its mildly successful title Civilization: Call to Power from a year earlier. Call to Power II was not as successful as its predecessor, in large part because the community that gathered around the first game, and which eagerly awaited the second, discovered a release that was full of bugs and missing several key features. Even more so than for general software, this is not an uncommon experience for computer gamers. The idea that a game can be buggy as long as it is patched after the customer pays for it has been an accepted, if resented, business model ever since Internet adoption became widespread enough to use it for patch distribution.

With Call to Power II, though, something went wrong. In a January 2001 statement sent to websites that hosted the game's community, Activision stated that the programmers and testers who were involved would be moving on to other projects and that no further patches to the title would be forthcoming. The community was predictably upset. Instead of giving up on the game, users decided that if Activision wasn't going to fix the bugs, they would. They wanted to save the game by getting Activision to open the source so it could be kept alive beyond the point where Activision lost interest. With some help from members of the development team that were active on fan forums, they were eventually able to convince Activision to release Call to Power II's source code in October of 2003 (http://ctp2files.apolyton.net/3years/history1.php).

Activision released the source code, but with every comment stripped out. Any programmer knows that trying to interpret another programmer's uncommented code is far more difficult than dealing with code that is properly documented. The problem gets worse as the scale of the program increases, and Activision had dumped nearly one million lines of code with no documentation. Upon receiving the code, the community quickly realized that they could do nothing with it as it was. Their first task was reverse-engineering the code to re-comment the entire release package (http://apolyton.net/forums/showthread.php?t=139275). The Call to Power II community project eventually re-commented the code and produced over 800 bug fixes, new features, and updates. They have kept the game running for almost ten years, far longer than it would have lasted had Activision just patched it in 2001.

Saving Abandoned Art Through Open Documentation

The people who worked on the Call to Power II open source project had it relatively easy compared to those who try to document or reconstruct projects in the arts. Code has a fixed interpretation because it is an entirely functional mode of communication. Given enough time, any programmer who knows the language is capable of deducing the purpose of a chunk of code. In the arts, it is not always obvious which aspects of a work are intentional constructions and which are coincidental flourishes that the artist does not care about. Interpretation also assumes that the interpreter's philosophical background places any degree of importance on what the artist thinks (http://faculty.smu.edu/nschwart/seminar/Fallacy.htm).

Since interpreting art is not nearly as straightforward as interpreting code, retroactively 'commenting' an artwork is problematic at best. What is needed in the arts are systems that remove the need to reverse-engineer an artwork by preserving not just the artifacts that go into its construction, but also the ideas, methods, and thought processes of the people involved in making the artwork. Effectively open sourcing artwork requires a higher level of documentation than open sourcing code.

The Still Water Lab at the University of Maine's New Media department has approached the problem of keeping art alive from two directions by producing two separate tools: one based on creation and one on preservation. The Pool applies an open source mentality to the production of art, code, and text. Originally conceived of by Joline Blais, Jon Ippolito, and Owen Smith, with ongoing development by Ippolito and John Bell, The Pool provides project-tracking infrastructure, comment and review systems, and à la carte licensing options to creative producers. The Variable Media Questionnaire, made by the Variable Media Network partnership, looks at the problem from the opposite direction by recognizing that preservation of many types of art is not as simple as putting it in a box until you need it again. Saving ephemeral, performance, or technology-based pieces requires understanding what is important about a piece, how to best capture its essential qualities, and where to draw the line when it comes to trying to save a work by transforming it.

Creation is Preservation

The Pool is a system that reinterprets the open source development model and applies it to several types of creative output. Still Water's team believes that one of the most important insights of open source is its focus on welcoming contributions to a project from anybody who is capable of making them and creating community relationships based on those contributions. In the case of software, the overarching goal of a project is often set when it begins. Most communication within that community focuses on specific design questions or implementation issues. By expanding its focus beyond software, The Pool also expands the scope of the information that needs to be captured in order to document and discuss the design process.

Figure 1 provides a screenshot of the web interface to The Pool. The main interface is a graph of project titles that defaults to mapping what projects have received the most and best overall reviews, though the titles can be remapped to represent other metadata. Clicking on a title opens tabbed panels with information on the project and additional links to external files, contributor panels, and other related projects in The Pool.

Different pools focus on different types of artifacts, including special "reference" pools that allow community members to use The Pool's analysis tools on projects that were not born in The Pool itself.

The Pool facilitates development by adding structure to the creative process, breaking down projects into three stages:

Intent: this phase is literally just an intention to make something. Somebody has an idea for a useful code widget or interesting art piece and drops a paragraph about it into The Pool to see what the community thinks. Intents can be pursued by attaching approaches to them.

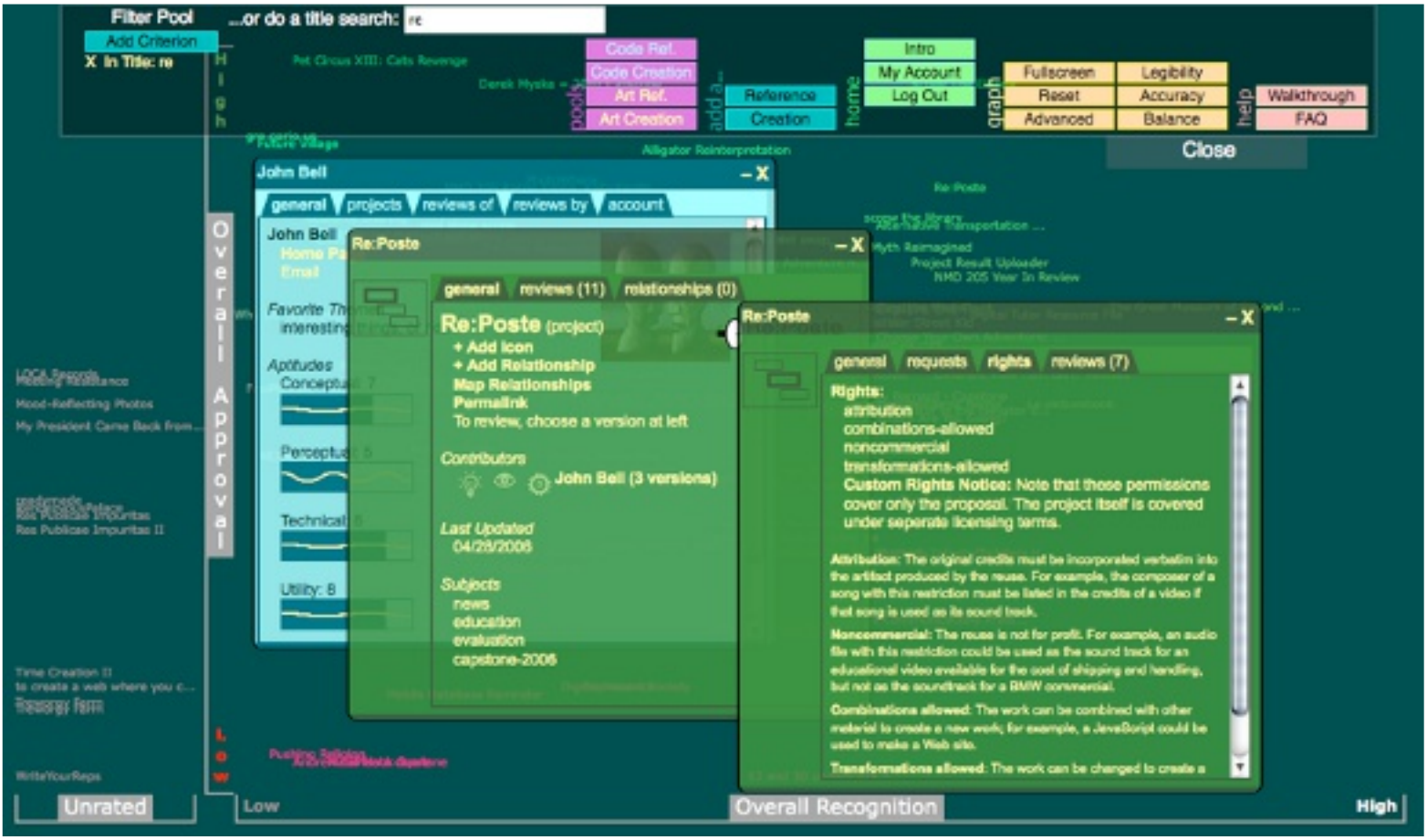
Approach: may be anything from a conceptual parti to a working mockup of the project. It is meant to be the beginning of a focused realization of the idea proposed in the intent stage.

Release: the approach can then be followed by a release of the project itself (http://tinyurl.com/y8gue7k).

A key idea in The Pool is that anybody on the system can add new stages to what others have created, subject to the licensing terms the original creator has chosen. Like code with comments, a project that has had its complete development process documented in The Pool can be revived by anyone, at any time, because the ideas that went into its creation have been recorded.

The Pool does not assume that design is simply a linear process that begins with intent and ends with a release. Another goal of documenting each stage of development as it is occurring is to get feedback from the community in real time. Project stages are rated on a variety of axes that are specific to each stage.

Figure 1: The Art Pool



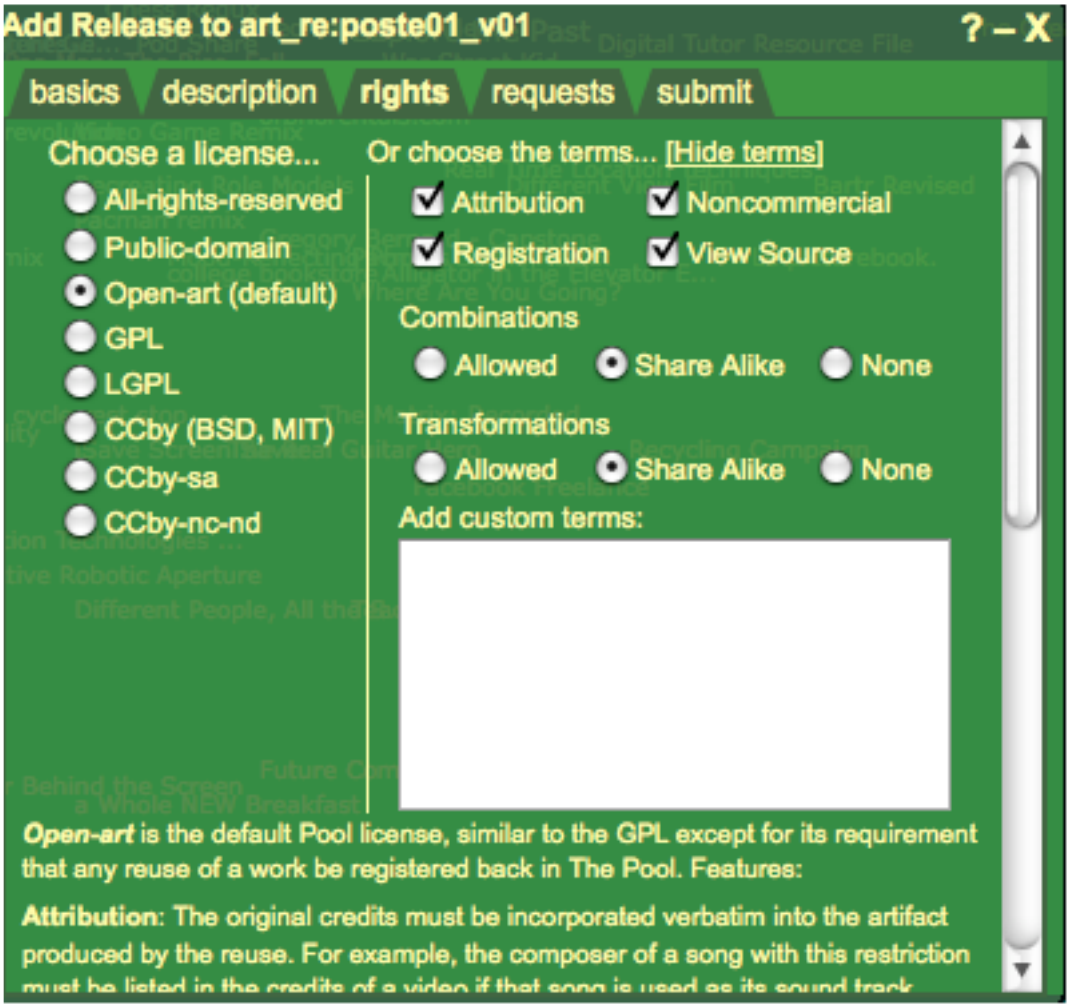
For instance, a release of software art can be rated conceptually, perceptually, or technically. A trust metric built into the rating system ensures that those who have received the best reviews on any given axis also have their reviews of other projects weighted most heavily (http://tinyurl.com/y8m64cb).

Rights in Distributed Creativity

As in any open system, intellectual property rights must be understood and respected. The Pool acknowledges that art is subject to a wide variety of attitudes toward sharing of ideas and technologies. As seen in Figure 2, creators who put artifacts in The Pool can choose to apply a number of common licensing terms instead of, or in addition to, selecting from a list of complete licenses (http://tinyurl.com/yeezzdz).

The possible terms include one that is unique to The Pool: the registration option states that any reuse of work found in The Pool must be entered as a new project in The Pool. Combined with a set of tools that track the predecessors and descendants of Pool projects, this license term allows creators to easily see how and where the work they share gets reused. This is a different type of viral license than the GPL. It is probably closer to the meaning of viral used in viral marketing because it is a license that intends to grow and protect a specific community rather than a general philosophy.

Figure 2: Selecting a Release License in The Pool



All of The Pool's mechanics are designed to replicate the best features of open source software communities. What is interesting is the effect that applying the open source model has on artistic creation. In a 2006 study of The Pool, Margaretha Haughwout found that:

"As a project develops, users lessen the controls of attribution and non–commercial licenses, and increase controls on no–combinations and no–transformations, while share–alike remains just about the same. The reasons for this are not certain. It could be that 1) projects that have less controls have more success; 2) an attitude shift occurs when a project nears or is in fact completed; or, 3) as users work more with The Pool they become more open–minded. The last possibility could prove to be quite compelling, given that conventional wisdom would suggest that authors should become more controlling of their work as they invest more time and effort in it" (http://tinyurl.com/yddyaqx).

These results are curious because they do not reflect the attitudes of either traditional art or open source software communities. Traditional art communities, heavily focused on attribution and reputation, would seem unlikely to loosen restrictions on attribution as projects reach completion and release. Open source communities are not likely to add additional restrictions on reuse and transformation as their codebase becomes more mature and more useful to other programmers. The merger of the two seems to have created an environment where attitudes toward intellectual property are distinctly different than either of its parents.

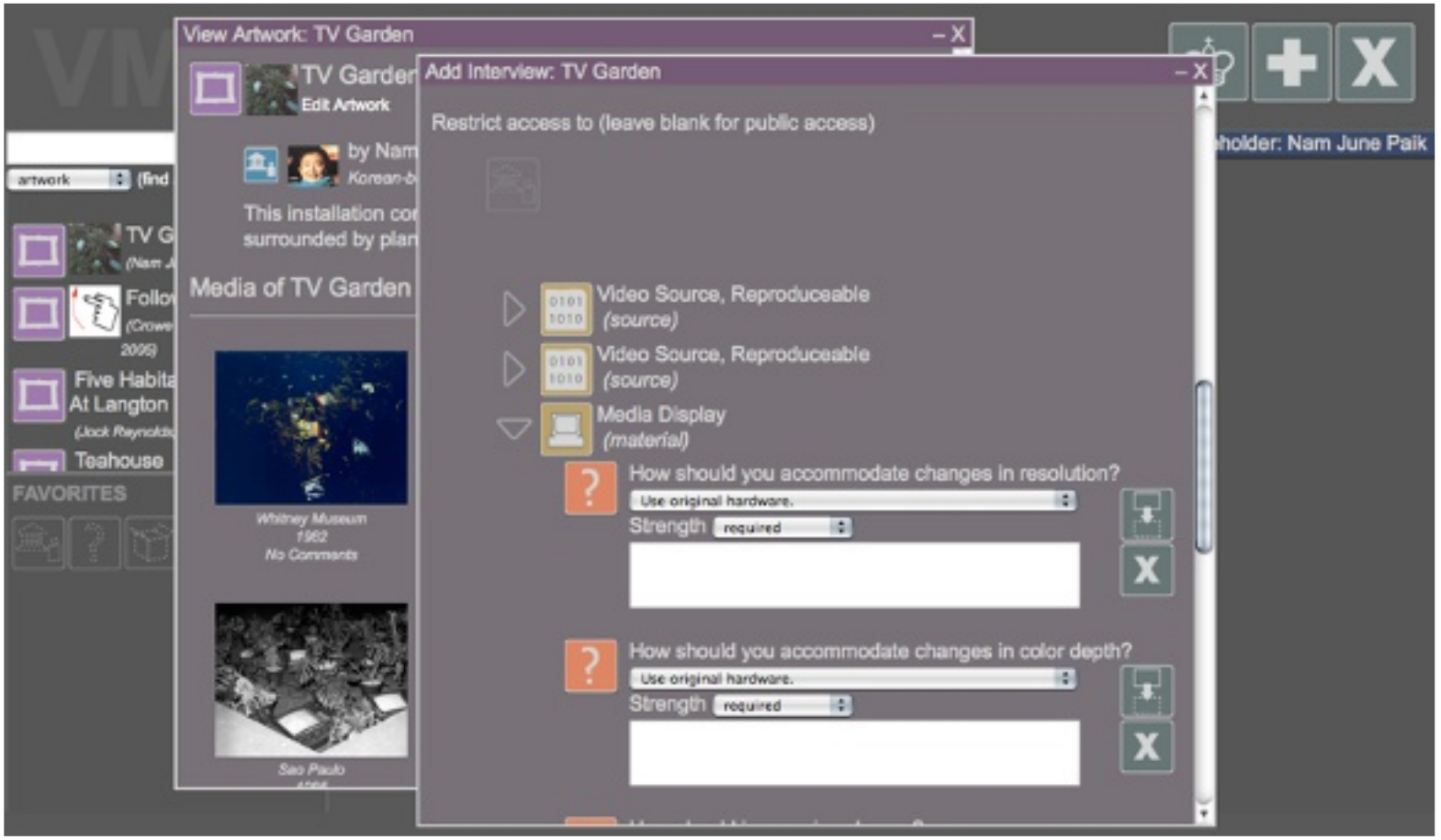
Reverse-Engineering Documentation

The Pool is designed to collect creation data throughout the development of a project. It is not useful in cases like Activision's code dump where an artifact arrives already finished but with no documentation. For artwork that is not created within the structured environment of The Pool, Still Water has produced the Variable Media Questionnaire (VMQ), seen in Figure 3, to assist in retroactively documenting as much as possible. The VMQ takes the same approach used by the members of the Call to Power II open source project and attempts to ascertain how the components of an artwork function and interact to create more than the sum of its parts. While The Pool focuses on creation, the VMQ is meant to aid in the preservation of existing works of art. It does so by applying one of the core tenets of open source: given enough eyeballs, all bugs are shallow (http://en.wikipedia.org/wiki/Linus%27_Law).

Bugs in an artwork may seem like an odd concept, but they are common. The most obvious case is the increasingly large amount of artwork that is based in some sort of active technology. Changing video or audio standards, obsolete software, or fragile hardware can cause a work to degrade or disappear. Other types of art have an inherent bug, if one assumes that the primary goal of art is to be directly experienced. Ephemeral, experiential or performance pieces can only occur once, and reconstructing them for others is entirely dependent on the documentation surrounding the original event. Even artifact-based work like paintings hung in a museum will degrade over time and lose their original vibrancy and power.

Design concepts borrowed from object-oriented programming heavily influenced the newest version of the VMQ. It introduced a shift from the previous two versions by viewing the fundamental unit of an artwork as not the artwork itself, but the pieces that go into its construction.

Figure 3: The Variable Media Questionnaire

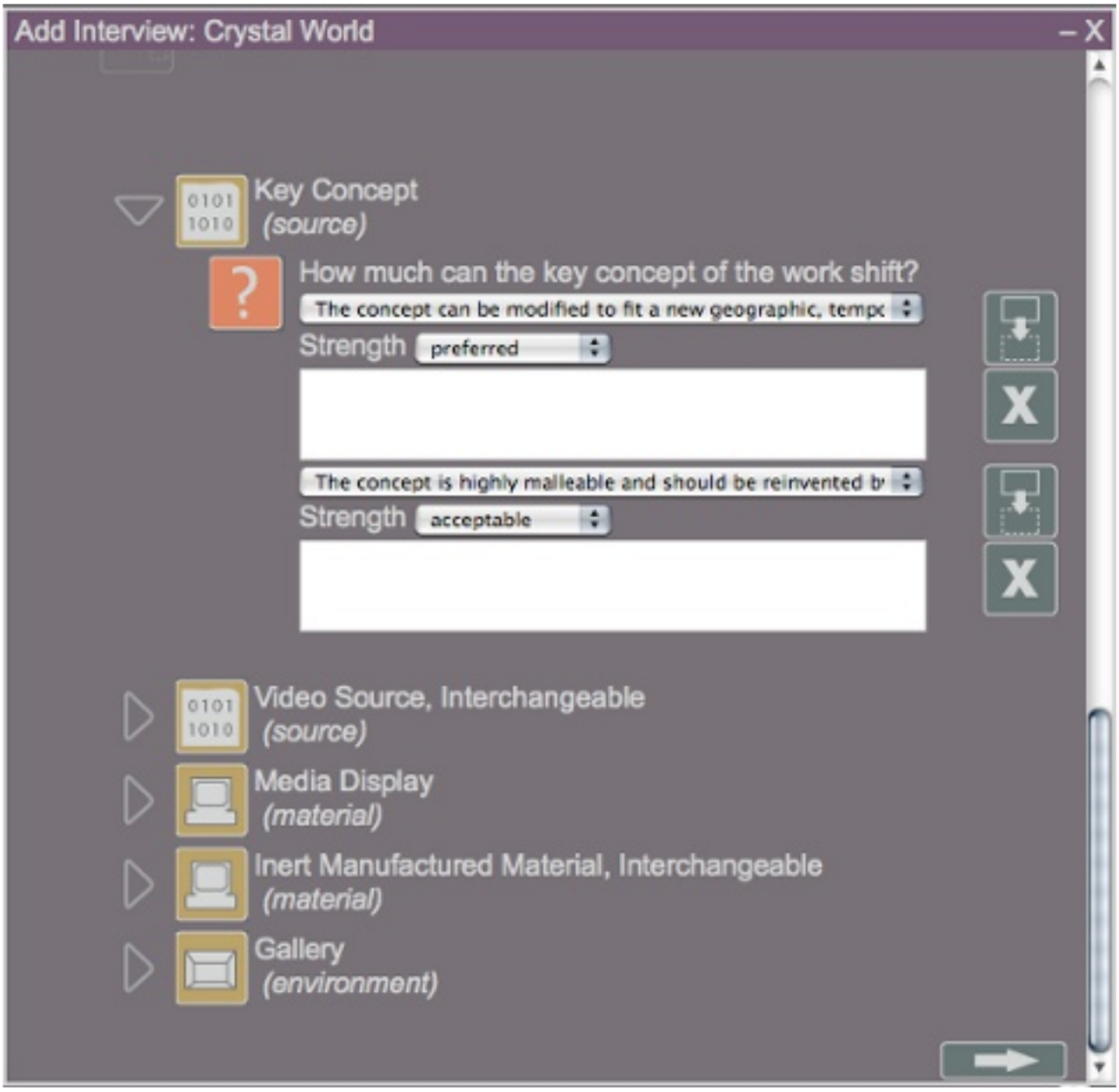


Like a program's classes, these components have sets of characteristics that describe the function of the component within the artwork and interfaces that allow them to interact with one another in prescribed ways. Like classes, they are self-contained units that fulfill functional roles within an artwork that can be upgraded or replaced as necessary, independent of other aspects of the work, so long as they retain the same interfaces and functionality as the original components. As an example, the VMQ would recognize that a piece of video art requires some sort of media display. Unlike standard cataloging tools, it would not specify that the display be a Sony 42" plasma screen with matte black finish. The VMQ asks what should happen when the original plasma screen breaks and how it should be replaced.

Figure 4 shows a sample of how an artwork can be broken down using generic class patterns. It also demonstrates the flexibility that is inherent to many preservation strategies in the VMQ: in this interview the user has chosen two answers to the same question and indicated that one is preferable, but the other is still acceptable if necessary.

The modern reality of art is that it is not enough to treat an artwork as just a collection of physical parts. The VMQ also recognizes environments, user interactions, motivating ideas, and external references as aspects to be surveyed and considered when preserving or recreating the piece (http://variablemediaquestionnaire.net/media/vmq_schema_narrative_v03.3.pdf).

Figure 4: VMQ Interview Panel



This structured disassembly of an artwork allows the VMQ to apply Linus' Law to just the parts of the artwork that have failed, instead of forcing preservationists to reinterpret the entire piece every time it is shown. In an attempt to capture as many impressions of the work as possible, questions about components are posed to not just the artist whose name is on the wall next to the piece but also the curators, conservators, assistants, and even viewers who have experienced the work.

Each component has a set of associated interview questions, and each question has a set of answers that correspond to different strategies that can be used to preserve the work. The sum of all the strategies suggested by a variety of people who have different perspectives on the work gives preservationists a clearer understanding of what needs to be done to capture the essence of the original piece (http://variablemedia.net/pdf/Ippolito.pdf).

Preservation is Creation

One problem with preserving artwork is that the art world places an extraordinary amount of value on original objects. Treating individual parts of an artwork as replaceable is anathema to a community that prizes unique artifacts. Despite several art movements from the last century that have attempted to devalue the prized art object, many museums and galleries remain fully committed to maintaining artifacts as one of the central reasons for their existence. Even for these institutions, the pragmatic argument that all media will eventually fail and preservation is a constant act of renewal is a persuasive one.

From a conservator's point of view, pragmatism becomes a balancing act between preservation and interpretation. Carol Stringari, Chief Conservator at the Solomon R. Guggenheim Museum, described the tradeoffs while discussing a previous version of the VMQ:

"When an artwork is restored we attempt to reconcile the change with what we know about the meaning of the work. Defining acceptable loss when we are dealing with highly intellectualized works and sophisticated technological parameters is key to safeguarding these cultural artifacts. As we move farther away from their initial concept, we may have fewer tools to reconstruct the intention. By doing this in an open forum and across disciplines, with the artist as an active participant, we can minimize the chances that we will significantly alter or misinterpret an artist's intention" (http://variablemedia.net/pdf/Stringari.pdf).

The VMQ is intended to help manage the balancing act by providing as much information as possible about the original work, including its prior showings, key concepts, and likely failure points.

When a part fails, the available input from an entire community of people who are connected with the work and the complexity inherent in dealing with cultural artifacts, makes the bug more shallow.

Conclusion

Open source artwork is a distinctly different prospect than open source software, but many of the characteristics of a strong software project can be applied to art. Still Water has focused on trying to replicate the open source community's willingness to share their work and ideas. As important are the technologies that have been developed to facilitate documenting software development so that other programmers can easily understand the code. If the art community documents their work in a structured manner, and with the same eye toward future integration with the work of others, it will be a boon to those trying to preserve and build upon the cultural artifacts created today.

John Bell (http://www.novomancy.org/john/portfolio/) is a web application developer, data artist, and adjunct faculty at the University of Maine New Media department. He has contributed to the development of The Pool, a system for fostering and documenting distributed creativity in digital arts; the Variable Media Questionnaire, a tool used in the recreation of technologically obsolete artwork; released several open-source web authoring tools; and given birth to an artificial intelligence that accidentally committed suicide. Many of his projects focus on trust in online communities and maintaining intellectual integrity in environments where there are few consequences to ignoring it. His work has been featured in Wired online and at Ars Electronica's Electrolobby Kitchen.

"Specific, closed cultures like that surrounding comic books have allowed voices to be heard that might not have been audible in a world in which all cultural texts speak the same common language."

Matthew J. Pustz, Comic Book Culture

This article discusses the historic genesis of one company's development of a portal and platform system that enables creators and their fans to work collaboratively between different mediums such as sequential art, graphica, concept, gaming, film/TV, and music. We examine challenges that arose and which are common to many startups. These include the protection of the intellectual property rights (IPR) of all parties, using open source software development to develop the portal, and the financial and personal toll that arises over the course of a startup's journey.

Recommended Resources

Death By Wall Label
http://thoughtmesh.net/publish/11.php

Permanence Through Change: The Variable Media Approach
http://variablemedia.net/e/preserving/html/var_pub_index.html

Can Creativity Be CrowdSourced?
http://cyber.law.harvard.edu/node/4498

Open Source Creation: the Analog Version

The monasteries of the dark ages had their own form of open source content: the Latin Vulgate (http://en.wikipedia.org/wiki/Vulgate) bible of Jerome of Stridonium. While the copying (or "coding") of the text had to remain faithful to the original, the platform of the book was open to interpretation by the individual team of monks who took on the tasks required to produce each bible. The skins of young animals such as calves, goats, or deer were labouriously stretched, scraped, and then pumiced until they were smooth enough to be cut into pages. Inks and paints were prepared from a variety of plants and mineral ores. Hoarded coins were spent on exotic dyes such as indigo and the gem lapis lazuli (imported from Northern Afghanistan) which would be ground down to create a celestial blue. Gold was hammered into the thinnest of sheets so as to make key letters literally shine out from the text.

Different team members had specialized skills. Some were the copyists, working painstakingly from the original text. Others worked as illustrators, creating monograms so fanciful that they were almost illegible. One monk might specialize in illustrations of flowers, another in animals, yet another in knot work, and others in images of the Christian pantheon. Each team member was necessary to create the dazzling books which were both a tribute to the faith of the monks and a visually stunning reminder of the importance of the information held within the only book most Europeans living during the Dark Ages would ever behold. The cooperative division of labour allowed the bibles to be created relatively quickly and to an artistic standard that would have been impossible had only one creator been involved.

In the 1980's, Ottawa's Aircel Comics (http://en.wikipedia.org/wiki/Aircel_Comics) fell into a similar model almost accidentally. When the Aircel insulation factory lost a government contract that provided much of its business, staff member Barry Blair convinced the owner to let him use empty factory space to start his own company. Soon after, a group of young creators worked together in a controlled frenzy to produce over a dozen 26-page titles each and every month. One of their comic books, Men in Black, was made into two hugely successful films. Writers came up with storylines and scripts, pencilers created the detailed page spreads that acted as guides to the inkers who used a variety of line weights to create mood, physical impact, and depth. Letterers filled the dialogue balloons and narrative boxes. Colourists worked from referenced templates within the limits of the flat colouring effects available from the budget-conscious printing processes then used to produce comic books. Certain templates had to be adhered to such as character traits, appearances, past storylines, and printing technology parameters. However, the creators had a great deal of freedom to interact with the works of other artists and writers. This was an unusual and creatively exciting situation, as most artists typically work in solitary conditions. It was also one that Ucreatecomics.com cofounder and Aircel production and creative team member Donald Lanouette would remember fondly.

Open Source Creation: the Digital Horizon

In 1994, excited by Computer Aided Design (CAD, http://en.wikipedia.org/wiki/Computer-aided_design) technology and the nascent capabilities of the Internet, Donald Lanouette returned to Ottawa. He was determined to recreate a new group studio, one that was not limited by geographic access. He wanted to create an online platform where visual artists, writers, and even fans could work together on sequential art forms such as graphic novels and daily editorial strips. He soon discovered that the expense involved in creating the software and the bandwidth needed to support the huge graphic files made the project unfeasible. Over the next decade, the idea of a vast, virtual studio for people interested in sequential art continued to interest him.

In 2006, he met Jason Daley, a former marketer in the technology industry with a passion for the production aspects of film/TV, another forum that fuses multiple creators and huge cooperative efforts. They formed Ucreate Media (http://ucreatemedia.com) and found their third team member in Ian Hlavats, a cutting-edge software developer and an accomplished flamenco guitarist. Already a committed participant in open source software development, Ian was intrigued by the challenge of building a platform that would make it possible for creators to meet and work together online, while giving interactive access to fans and

businesses with an interest in comics, film/TV, music, and gaming. The cost of bandwidth and processing power had decreased to the point where the idea was economically possible. Further, most visual artists and writers now either worked with digital formats or had easy access to the technology they would need to use the Ucreate portal.

Ucreate Media saw business potential in creating a collective of social media sites, designed to acquire and develop creative content with commercial potential. The controlled and mentored environment would unite fans with creators and build channels between traditional and new media outlets. The software for the platform needed to: i) be secure yet interactive; ii) foster artistic collaboration through ease of use; and iii) be expandable to permit user-driven suggestions for alterations and augmentations as creators and fans gave rise to possibilities currently unimagined.

Ucreate Media decided to focus on the comic book portal as the first platform because the process had not yet reached the same point of digitalization as other media areas. The Ucreate Software Platform was developed with a number of open source technologies that include; the MySQL (http://mysql.com) database, JBoss Application Server (http://jboss.org/jbossas), the JavaServer Faces (JSF, http://java.sun.com/javaee/javaserverfaces/) web application framework, and the Hibernate (https://hibernate.org) persistence and query service. During the process of integrating the open source technologies into the platform, Ian Hlavats discovered and submitted many bug reports to the open source projects and beta tested many open source technologies. He continues to be active as a resource in supporting other developers using the technologies. He exemplifies the fundamental concept of shared knowledge and expertise creating excellence that drives open source programming.

Challenges

Building an open source creative platform had some unexpected challenges. The UCreate Software Platform is a fully featured Java web application running on the Java Enterprise Edition platform. The presentation layer is based on the JSF framework and includes a RESTful (http://en.wikipedia.org/wiki/Restful) web service application programming interface (API, http://en.wikipedia.org/wiki/Api) and FTP protocol support. The middle tier or business layer is implemented using Enterprise JavaBeans™ (EJB, http://java.sun.com/products/ejb/) technology and the Java Message Service (JMS, http://java.sun.com/products/jms) for robustness and scalability. The data access layer is implemented using the Java Persistence API (JPA, http://java.sun.com/javaee/overview/faq/persistence.jsp) and the Java Content Repository (JCR, http://ibm.com/developerworks/java/library/j-jcr/) API. It was anticipated that the software development would be more complex than initially hoped, but six months turned into a year, then two years and finally three years before the portal was ready for beta testing.

It became apparent that shared creation could fall afoul of copyright protection laws, restricting the envisaged free-flowing collaboration of visual and text creators working within the various IPR such as those created in-house by Ucreate Media, existing commercial IPR brought to Ucreate platform users to expand upon, and the IPR generated by creative brainstorming between Ucreate portal users. In order to solve this issue, Ucreate competitions are put out under the CC BY-NC-SA Creative Commons Licence (http://creativecommons.org/licenses/by-nc-sa/3.0). Creating the options and rights contracts for members of the platform who won the user-driven creative com-

petitions meant another significant financial outlay in legal fees. This was exacerbated by the high degree of legal specialization necessary to ensure that the corporation, creators, and member users were all protected. The decision to put resources into the drafting of these documents was based upon the long history of costly legal difficulties that have resulted from groups of creators working together without sound legal contracts in place. Although it was tempting to skimp now, it was acknowledged that it could be expensive over the long term.

The energy needed by the three founders to stay motivated and on track was sometimes difficult to maintain. The economic stress created whenever a startup's business principals invest the majority of their time and career effort over several years into a business unable to generate revenue until it is launched can create problems on the home front. This is where the value of multiple partners with different perspectives is valuable, as each can encourage the others through times when quitting may seem like the best option.

Evolution

Ucreatecomics was conceived as a site where artists and writers would work with Ucreate IP, competing for fan votes in order to win freelance contracts and garner unbiased opinions of entertainment properties for development. The concept evolved into a user-driven website where the majority of members would be fans who would drive the direction of creative members' efforts. As even more features were developed, especially the interactive communications tools for inter-member connection and feedback, it became apparent that the site would also function as a social media network for creators and their fans. Through the use of crowd funding (http://en.wikipedia.org/wiki/Crowd_funding), fans will influence the entertainment projects that move forward through the Ucreate process. Currently, creators and key fans are being invited to beta test the platform and discover the potential to develop their professional skills as they work with each other. Writers, visual artists, musicians, CGI experts, and fans can all provide ideas, feedback, resources, competition and support, all of which are intended to nurture innovative and intriguing IP.

The next step is the creation of a fund for the purpose of seeding concepts that Ucreate Media will develop and incubate across multiple revenue drivers. Although made possible through technology, the heart of open source creation goes back to age-old human imperatives: the need to create and to critique, edit, and expand upon that which has been created.

Conclusion

Open source creation made possible by computer technology can transcend geography, culture, economic class, and the technical skills required within traditional visual arts, literature, and music that separate creator from consumer. Ucreate Media's portal democratizes the creative process by allowing all users to vote on which projects move forward to be realized in both traditional and new media.

The information in this article was based upon materials provided by Jason Daley, Ian Hlavats, and Donald Lanouette.

Karen Opas-Lanouette, the editor for Ucreate Media and a lifelong fan of sequential arts, is inspired by the collaborative, borderless possibilities of open source creation. She has a background in the visual arts and as a professional writer/editor whose work has appeared in The Globe & Mail and Saturday Night Magazine.

"Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will."

George Bernard Shaw

Given the number of free/libre and open source (F/LOSS) licensed tools, and the number of "no cost" applications at the fingertips of the artist/animator/film developer today, the ability to "create what you will" is now an option for everyone. The advent of affordable media development tools has opened up the world of media production to those who were previously locked out of the Hollywood studio system. Proprietary software including Adobe Creative Suite, Autodesk's Maya, Nuke, After Effects, Final Draft, and a litany of other necessary tools creates a financial wall so high that "will" cannot overcome it alone.

In this article, we examine a standard pipeline from a birds-eye-view for anyone with a will to create an Indie film. Without breaking the bank, the entire film development pipeline is achievable using F/LOSS, no cost tools, and content that is available under a creative commons license. This allows high quality media development for all. In many cases, these same tools are being used by the Hollywood elite.

Getting Started

Let's start from the ground up by examining available operating systems. As most personal computer users receive a copy of Microsoft's Windows when they purchase a computer, it is prevalent and widely used. When using an open source pipeline, consider an open source desktop operating system such as Ubuntu (http://www.ubuntu.com/) or PC-BSD (http://pcbsd.org/). If fear of the unknown is a significant issue, consider Vixta (http://vixta.sourceforge.com/) which contains all the base applications needed to get started while providing the look and feel of Windows Vista. The core F/LOSS and no cost tools include:

- Firefox (http://mozilla.com/firefox) browser instead of Internet Explorer
- OpenOffice (http://openoffice.org) instead of Microsoft Office Suite
- VLC (http://www.videolan.org/vlc/) multimedia player instead of Microsoft Media Player
- Skype (http://www.skype.com/) and aMSN (http://www.amsn-project.net/) instead of MSN Instant Messenger
- Inkscape (http://www.inkscape.org/), Scribus (http://www.scribus.net/) and GIMP (http://www.gimp.org/) instead of Adobe Creative Suite
- PDF creator (http://sourceforge.net/projects/pdfcreator/) or the pdf toolkit (http://www.accesspdf.com/pdftk/) instead of Adobe Acrobat

You don't have to be a Linux user to make use of this software as all of these tools are also available for Windows (http://opensourcewindows.org/).

It's Called a Pipeline for a Reason

In development parlance, the process is known as a pipeline because a linear set of steps is executed to get from the starting point of an idea to the end point of a finished film. There is no single tool available to complete the entire task of film creation. You often need to develop a chain of outputs from one tool which are used as inputs to another tool in order to create the final product. This series of steps is the pipeline. By using a top-down design approach, you can easily define each of the smaller tasks and find the appropriate tool for accomplishing each.

For example, a three dimensional animation production can be broken down into the following steps:

- art and story
- layout
- modeling and environment
- rigging
- animation
- lighting
- composition
- editing
- mastering
- distribution

The process is actually much larger and it takes a significantly more detailed pipeline to complete the production, but the idea is that a pipeline defines a work flow and tool requirements. The final pipeline will vary from project to project, depending upon what the final product requires, but this is the nature of media development. Once you have defined all the tasks that you need to accomplish, you may then use a combination of tools in sequence. All productions, whether they be blockbuster high budget films or Indie projects, have to define their workflow and pipeline.

Story Is Everything

A common saying in Hollywood and in the halls of successful media development studios is that "story is everything". Consider your story and how it will unfold. Before beginning your research, download CELTX (http://celtx.com).

Started as a simple script writing application, CELTX has become a popular preproduction tool containing a system to collect thoughts to be used for later reference in writing and planning. Another option for research notes is a desktop wiki notepad like ZuluPad (http://gersic.com/zulupad/).

As the plot progresses, the action rises due to increased pressure on the character. This creates tension and suspense for the viewer. This pressure builds to a point where the protagonist confronts the central conflict in the story and resolves it. This sequence of events plays an important role in the structure of a plot. If the sequence does not give an impression of rising action and increasing suspense or danger, the plot will appear to be disjointed and illogical. In early production when the plot is still being defined, mind mapping or outlining software such as FreeMind (http://freemind.sourceforge.net) or Cmap (http://cmap.ihmc.us) can be used to help organize thoughts. Good screenplay and production management templates are available from Dependent Films (http://dependentfilms.net/files.html). Just remember the adage from Alfred Hitchcock: "The length of a film should be directly related to the endurance of the human bladder". Once the script is complete, it is time to consider the production management requirements.

Production Management

Unless the film is written as a one-man show, it needs the assistance of others with tasks such as acting, voice recording, and production. This usually means managing investors, partners, employees, actors, and artists. Like any project that needs managing, communication and collaboration are the key contributors to success.

It is important to keep the information about the production current and available to all the key stakeholders in a central location. A LAMP (http://en.wikipedia.org/wiki/LAMP_software_bundle) server running a groupware solution like dotProject (http://www.dotproject.net/) provides a useful project management and communications solution. While not designed specifically for arts and media production, this solution offers plenty of tools for project management, including:

- messaging
- calendar
- to-do lists
- contact lists
- Gantt charts (http://en.wikipedia.org/wiki/Gantt_chart)

Other F/LOSS groupware solutions are available and OpensourceCMS (http://opensourcecms.com/) provides descriptions and comparisons. If a LAMP server is outside of your technical comfort zone, a service like Zooce (http://zooce.co.uk) offers online film budgeting production management services. Gantt Project (http://www.ganttproject.biz) or Planner (http://live.gnome.org/Planner) provide alternatives to Microsoft Project management software.

Pre-Production

One of the primary pre-production tasks is budgeting. OpenOffice's calc program (http://www.openoffice.org/product/calc.html) provides a spreadsheet application that is useful for preliminary budgeting and targeting tasks. Budgeting templates are available from Dependent Films. Google Docs (http://docs.google.com) provides a no cost, web-based spreadsheet application.

Any production will have expenses, and virtually every film location has tax credit systems to encourage media development in their jurisdiction. Although a spreadsheet makes sense for budget estimation and analysis, a financial accounting system is also necessary for bookkeeping. F/LOSS packages include TurboCASH (http://turbocash-usa.com) and GNUCash (http://gnucash.org). These programs provide an inventory management solution, distribution network management software and a customer database. A comprehensive list of calculators can be found at http://martindalecenter.com/Calculators.html.

Any film production will need a number of management forms, documents, agreements and structured documents. Paul Zadie (http://paulzadie.com/freestuff) and Dependent Films offer many different kinds of documents such as Cast Information Sheets, Continuity Notes, Daily Production Reports, Equipment Checklists, Likeness and Usage Agreements, Location Agreements, Script Agreements, and Shot Breakdowns.

Another important pre-production task is pre-viz, or the pre-visualizing of the film and story boarding. CELTX doubles as a storyboarding tool. OpenOffice's Impress (http://openoffice.org/product/impress.html) could also be used to create a storyboard presentation. A recent trend is the use of animatics as a primary pre-visualization tool. The 3D modeling and animation software Blender 3D (http://www.blender.org/) is an option. First and foremost an animation tool, Blender 3D was used with some success in the planning of Spiderman 2 and in the creation of the open source shorts Elephants Dream (http://www.elephantsdream.org/) and Big Buck Bunny (http://www.bigbuckbunny.org/).

Publicity

Minimally, publicity means a website and production blog. This can be as simple as a no cost account on Facebook (http://www.facebook.com/), Myspace (http://www.myspace.com/), or Google's Blogger (http://www.blogger.com/). A well crafted themed website that is cohesive with the film's plot can be created using a WYSIWYG (http://en.wikipedia.org/wiki/Wysiwyg) webpage editor such as Nvu (http://www.nvu.com/), the open source equivalent to Adobe's Dreamweaver application. Imagery can be easily added using the vector graphics program Inkspace and the image manipulation program GIMP. A content management system (CMS) such as Joomla (http://joomla.org) or Drupal (http://drupal.org/) provides a modular design, making it easy to add virtually any feature imaginable to the website.

Post Production

Post production is probably the most software intensive portion of the whole process. This is where you edit film, insert visual effects, post-produce audio, mix, composite, colour correction and lighting correction. Blender 3D will likely be the main pillar of the post-production F/LOSS tool shed, but it is not Non Linear Editing (NLE, http://en.wikipedia.org/wiki/NLE) software. There are a number of NLE options in the open source world with the most popular being Jahshaka (http://www.jahshaka.org/), the open source equivalent to Adobe's After Effects. A simple cross-platform option is Avidemux (http://fixounet.free.fr/avidemux) for assembling footage. A system such as Wax (http://debugmode.com/wax) or ZS4 (http://www.zs4.net/) can be used to perform compositing, visual effects and the NLE function in one application similar to Adobe After Effects.

Blender 3D was initially the open source version of Autodesk's 3D Studio Max, or Maya. Designed as a modeling and 3D animation application, it can be utilized for everything from titles, to visual effects, green screening and matte production, compositing and editing. Combined with matchmoving software such as Voodoo (http://www.digilab.uni-hannover.de/download.html), you have the tools required for sophisticated visual effects like inserting virtual objects into live footage.

Audio post production is another unavoidable task and the most popular solution is Audacity (http://audacity.sourceforge.net) for recording and mixing of audio. Ardour (http://ardour.org/) provides more than 200 plug-ins providing different filters, processors and effects. Audio effects and foleys (http://en.wikipedia.org/wiki/Foley_filmmaking) are available from freesound.org under a Creative Commons License to polish the sound of your project.

Distribution

In the end, the world needs to see your creation. It may be easy to forget that file formats such as AVI and Quicktime are proprietary formats, and in the bigger picture, this is not really an issue. Your choice of export formats matters little because of the prevalence of free players. The open source format OGG Theora by Xiph provides compression ratios and quality comparable to MPEG-4.

If your distribution plan includes DVDs, you can use Avidemux to encode your video in MPEG-2 format. DVDStyler (http://www.dvdstyler.de/) can be used to create a navigational menu system and a DVD image can be burned using ImgBurn (http://www.imgburn.com/). The disc image can be tested with the VideoLAN player (http://www.videolan.org/).

A popular no cost distribution channel includes YouTube or a peer-to-peer file sharing system such as BitTorrent (http://www.bittorrent.com/).

Conclusion

We have examined the film production pipeline in all phases to show that excellent open source and no cost alternatives exist to the standard proprietary software pipeline. This article is by no means comprehensive and omits the specific examination of open source rendering software, such as Pixie (http://www.renderpixie.com) which was used in the Lord of the Rings movies and provides a viable alternative to Pixar's Renderman. To further emphasize the legitimacy of open source software and tools, Hollywood productions are regularly looking to open source solutions in their productions.

Recommended Resources

30 Must-Have Video Apps
http://www.jakeludington.com/downloads/20060731_30_musthave_free_video_apps.html

Mohawke's Best of the Best Free and Open Source Software Collection
http://www.digitaldarknet.net/thelist/

Toolshed @ filmmaker.net
http://www.filmmaking.net/toolshed/software.asp

Anthony Whitehead is a Professor in, and the Director of, The Carleton University School of Information Technology. As a faculty member with the Interactive Multimedia and Design Program he has created art based media installations featured at SIGGRAPH, installed in the Museum of Civilization, featured in International visual effects festivals and supervised interactive installation developments at the School.

"If content is king, then conversion is queen."

John Munsell, CEO of Bizzuka

Social Media, also known as Web 3.0, is not your granddaddy's Internet. How it is used is in a constant state of change. The rising tide of expectations, together with innovation, are pushing various platforms, especially in mobile technology. Mobile has become a compelling format to interface with the Internet, bringing a new spin to the phrase "One Laptop Left Behind" (http://audsandens.blogspot.com/2007/12/one-laptop-left-behind.html).

We believe that the degree to which open source communities embrace mobile and Social Media technologies dictates their relevance to the general public. We also believe that open source and Social Media communities can learn and benefit from each other. This article explores the increasingly intersecting worlds of Social Media, mobile, and open source. We describe how Social Media has the potential to change the way communities use and create open source tools to better align with end-user expectations.

Open Source Compared to Social Media

We define Social Media as a network or community where people with similar interests share information using accessible and scalable publishing techniques. Social Media transforms individuals from passive content consumers to active content producers. Facebook, LinkedIn, Twitter and YouTube are all examples of Social Media. Until recently, Social Media tools were rarely released under open source licenses, meaning that users could use, but not necessarily modify or distribute the tools.

Open Source for America (http://opensourceforamerica.org/) defines open source as a collaborative development model for software creation. It harnesses the power of distributed peer review and transparency of process to develop code that is freely accessible and released under an open source license (http://www.opensource.org/licenses). Open source draws on a community of distributed developers to drive innovation. The fundamental philosophy shared by open source developers is that the power of collective thinking is greater than that of the individual.

In Open Source is a Company; Social Media is a Country (http://longtail.com/the_long_tail/2009/03/open-source-is-a-company-social-media-is-a-country.html), Wired Magazine writer Chris Anderson categorizes the difference between open source and Social Media as a simple comparison of political systems. He argues that open source is similar to a company which is run in a top-down and structured manner, whereas Social Media is a more bottom-up approach akin to a country run in a democratic model. The contrast is that a company provides a common purpose while a country serves the people.

Chris points out that open source projects are mistakenly perceived as self-organized and democratic. The reality is that they are driven by a clear and focused vision. In contrast, people who utilize Social Media are not following any direction or dictate.

It is important to note that both management styles provide inherent benefits. The compelling question is: "How can open source benefit from the type of freedoms provided by Social Media?". The answers to this question are still unfolding and require us to go beyond thinking of open source and Social Media as polar opposites in terms of their structure and the freedoms they provide.

In the comments section of the Wired article, William Hertling states: "What both open source and social media have in common is that they both tend to be meritocracies. The great leaders in open source are followed voluntarily because they have proved their merit as designers, visionaries, or organizers. Similarly, Social Media recognizes those who make substantial contributions: contributors voluntarily link to other contributors who make worthwhile contributions".

Mobile, Open Source and Social Media

When everything started to go digital, companies increased their protections on how they did business internally, creating barriers to protect their source code. As the quality and popularity of open source projects increased, the ever growing mainstream trend to move to open source made more companies realize that the cost of innovation and competition may be too much compared with competitors that use open source software. This trend is now being seen in the mobile market.

Google's Android, built using Linux, began as a closed source software project which was eventually released as open source. Developers can now create their own applications on top of Android's platform and distribute their own Android-like products. In June, 2009, Rogers of Canada launched their own Android phone HTC Dream which includes social networking tools such as Facebook (http://androidincanada.ca). During the first half of 2009, the Symbian Foundation (http://www.symbian.org) launched. It is a non-profit organization founded by Nokia, Sony Ericsson, NTT DoCoMo, Texas Instruments, Vodafone, Samsung, ST Ericsson and AT&T. Their stated goal is to "bring to life a shared vision to create the most proven, open and complete mobile software platform - and to make it available for free".

They plan to release the Symbian mobile phone operating system under the open source Eclipse Public License (http://opensource.org/licenses/eclipse-1.0.php).

By 2010, it is expected that four billion people will have joined the global mobile conversation. Mobile companies realize that an entire generation's first Internet, camera, music player and phone experiences will all be on a mobile device.

Growth of Open Source and Social Media

In a study conducted by Gartner and reported by Matt Asay at CNET (http://news.cnet.com/8301-13505_3-10223005-16.htm), CIOs report that they have increased investment in open source software and decreased investment in proprietary software. By investing in open source, they are able to:

- reduce costs by 87% (while meeting or exceeding expectations)
- improve quality by 92%
- ease integration and customization by 86%
- quicken pace of innovation by 82%
- improve support by 84%
- increase standards compliance by 91%
- decrease time to market by 82%

Open source has the luxury of continual user feedback and collaboration to help design software that meets the requirements of business, users and developers. Communication is also the essence of Social Media, as the goal of a social network is a user-driven and -managed experience through community creation.

A social network offers community interaction where people of similar interests can connect to share ideas and experiences. Social Media's ease of use results in a greater number of users collaborating and interacting, compared to the number of users seen in a typical open source community.

Danah Boyd of Alternet (http://alternet.org/media/142356/facebook_and_myspace_users_are_clearly_divided_along_class_lines) highlights the social networking value of Social Media: "Many of us in this room see social network sites as a modern-day incarnation of the public sphere. Politicians log in to these sites to connect with constituents and hear their voices. Campaign managers and activists try to rally people through these sites. Market researchers try to get a sense of people's opinions through these sites. Educators try to connect with students and build knowledge-sharing communities".

The Social Media Revolution video summarizes the growth and impact of Social Media (http://youtube.com/watch?v=sIFYPQjYhv8). It includes statistics such as:

- one in every twenty Internet visits in the US is to one of the top twenty social networking sites, representing a growth rate twice that of a year ago

- 85% of Canadians regularly visit a social networking site with 63% regularly visiting a blog

Businesses and organizations are starting to see the value and strength found in the large populations that can be reached using Social Media. Corporations are moving beyond a restricted information sharing model to a more open approach that communicates through Social Media platforms.

Marketing Through Social Media

An April, 2009 Forrester Research report entitled The Future of the Social Web (http://www.forrester.com/Research/document/0,7211,46970,00.html) predicted tremendous growth for Social Media Marketing budgets. The next four years are expected to see a rise of 34% in expenditures, outstripping both email and mobile marketing.

The Comscore presentation at Podcamp 2009 discussed the Social Media context:

- 24 million Canadians use Facebook at least once a month (out of a total population of under 34 million) and the average Facebook use is 46 hours per month

- 85% of Canadians view streaming video with an average of 120 videos per month per viewer

- MySpace has 70 million US users

- daily Internet use among youth increased from 24% to 40% between 2007 and 2008; TV usage for the same period increased from 28% to 29%

The importance of Social Media cannot be dismissed as a passing phase. It represents a real disruptive technology that is probably waiting for a real killer application. Some believe that application is Facebook, but only time will tell.

The Future of Open Social Media

An excellent example of the open source and Social Media worlds combining is the launch of Google Wave at the Google IO 2009 Conference (http://youtube.com/watch?v=v_UyVmITiYQ).

According to Google: "Google Wave is a real-time communication platform. It combines aspects of email, instant messaging, wikis, web chat, social networking, and project management to build one elegant, in-browser communication client. You can bring a group of friends or business partners together to discuss how your day has been or share files" (http://mashable.com/2009/05/28/google-wave-guide/).

Features include:

Real-time support: in most instances, you can see what someone else is typing, character-by-character.

Embedability: waves can be embedded on any blog or website.

Applications and extensions: developers can build their own applications within waves. These can be anything from simple bots to complex real-time games.

Wiki functionality: anything written within a Google Wave can be edited by anyone else because all conversations within the platform are shared. You can correct and append information, or add your own commentary within a developing conversation.

Open source license: Google Wave code will be released as open source in order to foster innovation and adoption amongst developers.

Playback: you can playback any part of the wave to see what was said.

Natural language: Google Wave can auto-correct spelling, even going as far as knowing the difference between similar words, like “been” and “bean.” It can also auto-translate on-the-fly.

Drag-and-drop file sharing: there are no attachments. Drag a file and drop it inside Google Wave and everyone will have access.

According to Adam Ostrow of Mashable (http://mashable.com/2009/09/08/google-wave-wordpress-plugin/), Google Wave provides the following benefits:

1) it’s editable, meaning the audience you’re sharing the embed with can make changes

2) it’s drag and drop, so that same audience can also easily add content

3) it can be played back, so you can see how the Wave has evolved over time.

Taking all of these features into consideration, it is possible that the Wave could become a new type of commenting system for the Web.

Pushan Banerjee provides another summary (http://slideshare.net/taita80/google-wave-why-i-want-to-surf-it). The wave itself is at http://wave.google.com.

Final Thoughts

We believe that as developers continue to integrate Social Media’s usability and interactivity into their development practices, the two worlds of open source and Social Media will become more entwined. More businesses and organizations will adopt both open source and Social Media technologies to accomplish their goals and produce opportunities for the future. Social Media will continue its growth as a popular communication tool and, over time, more Social Media tools will be released under open source licenses.

Aaran Duncan is owner of Digital Deceptions (http://digitaldeceptions.ca). He is a graphic and web designer as well as an award winning WordPress theme designer at WordCamp Toronto 2009.

Glenn McKnight is owner of Global Catalysts Consulting Service (http://www.globalcatalysts.com). He is a consultant to non-profits, providing Social Media and Open Source Solutions. Glenn is former Director of the Linux Professional Institute which focuses on global Linux professional certifications.

Recommended Resources

Facebook in Reality
http://www.youtube.com/watch?v=nrlSkU0TFLs

Open Source and Social Media: Community, Collaboration, Freedom
http://mashable.com/2007/07/25/open-source-social-platforms/

Social Media Stats & Quotes
http://www.buddymedia.com/images/social-media-stats-quotes.pdf

Linux Kernel Development: How Fast it is Going, Who is Doing It, What They are Doing, and Who is Sponsoring It

From the Introduction:

The Linux kernel is an interesting project to study for a number of reasons. It is one of the largest individual components on almost any Linux system. It also features one of the fastest-moving development processes and involves more developers than any other open source project. Since 2005, kernel development history is also quite well documented, thanks to the use of the Git source code management system. This paper takes advantage of that development history to look at how the process works, focusing on over four years of kernel history as represented by the 2.6.11 through 2.6.30 releases. This is the second version of the paper which was published in April, 2008, and covered development through the 2.6.24 kernel. A look at the six kernel releases which have happened since then shows that, while many things remain the same, others are changing. In particular, the pace of development of the Linux kernel continues to increase.

www.linuxfoundation.org/publications/whowriteslinux.pdf

The Commenting Practice of Open Source

From the Abstract:

The development processes of open source software are different from traditional closed source development processes. Still, open source software is frequently of high quality. This raises the question of how and why open source software creates high quality and whether it can maintain this quality for ever larger project sizes. In this paper, we look at one particular quality indicator, the density of comments in open source software code. We find that successful open source projects follow a consistent practice of documenting their source code, and we find that the comment density is independent of team and project size.

http://dirkriehle.com/wp-content/uploads/2009/08/oni0017-arafat.pdf

2009 Coverity Scan Open Source Report

Copyright: Coverity

From the Description:

The 2009 Coverity Scan Open Source Report is the result of the largest public-private sector research project focused on open source software integrity. The findings provide an opportunity for the public and private sectors to examine software integrity trends from the world's most commonly used open source packages, including Firefox, Linux, PHP, Ruby and Samba.

http://www.coverity.com/scan/

September 10

NRC-IRAP Invests in Coral CEA to Accelerate Unique Commercialization Model

Ottawa, ON

Peter Carbone, Chair of the Board of Coral CEA announced that the National Research Council Canada Industrial Research Assistance Program (NRC-IRAP) has provided a financial contribution to further Coral CEA's ecosystem model of commercialization. Coral CEA's commercialization model involves qualifying and developing emerging businesses, providing them with commercialization support and technology building blocks to differentiate their offers in the marketplace. It also brings customers and investors to the table and provides the opportunity for investment in lead projects to fill gaps in the commercialization process. Coral CEA is focussing its technology building blocks on Communication Enabled Applications, the next generation of ICT. These can be used by member companies to significantly enhance their commercial offers into health, finance, education, or virtually any business vertical.

http://coralcea.net/coral/tiki-download_file.php?fileId=76&thumbnail%22

October 19-23

Open Access Week

Global

Open Access Week is an opportunity to broaden awareness and understanding of Open Access to research, including access policies from all types of research funders, within the international higher education community and the general public. The now-annual event has been expanded from a single day to accommodate widespread global interest in the movement toward open, public access to scholarly research results.

http://www.openaccessweek.org/

October 24

Ontario Linux Fest

Toronto, ON

Ontario Linux Fest is the conference, workshop and community meeting place that is organized and run by the community for the community. This full day of presentations, workshops, birds-of-a-feather and social networking is ready to go for the third year. Everybody with an interest in using, deploying and developing Free / Libre and Open Source Software will find Ontario Linux Fest well worth their while.

http://www.onlinux.ca

October 25, 28-30

Creative Places + Spaces

Toronto, ON

Creative Places + Spaces is a multi-media, interactive, art-infused experience designed to inspire, empower, and connect thinkers, policymakers and practitioners working to build vibrant, dynamic, sustainable and creative places. Delegates and speakers will have the opportunity to hear, see, exchange and practice global perspectives on collaboration and connect them to local opportunities for change.

http://www.creativeplacesandspaces.ca/conference

October 27-28

New Brunswick Innovation Forum

Saint John, NB

The New Brunswick Innovation Forum 2009 offers a venue for innovative companies, investors, scientists and researchers to find each other so that more New Brunswick and Canadian innovations can reach the marketplace. The themes for 2009 are: E-learning, Simulation, Animation and Gaming, Health ICT/Services, Mobile Technology/Intelligent Systems, and IT Systems and Services.

http://innovation2009.nrc-cnrc.gc.ca

October 29

Teaching Open Source Summit

Toronto, ON

The first of the Teaching Open Source Summits will be held as a pre-conference activity to the Free Software and Open Source Symposium.

http://teachingopensource.org/index.php/Teaching_Open_Source_Summit_2009-10-29

Toronto, ON

FSOSS

October 29-30

Open source, open content, and open formats are changing the way we work, play, and learn. From software to the web to television and the media, the open source movement is spreading. Come see and hear the future in person from some of the most important thinkers in open technologies.

http://fsoss.senecac.on.ca/2009/

November 2-5

CASCON

Richmond Hill, ON

This "Meeting of Minds" provides an exciting forum for exchanging ideas and experiences in the fields of software development and computing. CASCON 2009 will be an excellent venue for networking with researchers and practitioners from academia, industry, and government.

https://www.ibm.com/ibm/cas/cascon

November 7

Hackfest

Quebec City, QC

Hackfest will interest everyone that is passionate about technology and security. If you think that you are the future and the experts of tomorrow so it's a great place to get started and to integrate yourself into the world of technology and security. Several security and information technology professionals will also attend. Moreover, it is also possible that some companies working in these areas will be present for recruitment.

http://www.hackfest.ca

November 30 - December 2

Innovation Week

Toronto, ON

With keynotes, sessions, face to face meetings, panels, awards, and networking opportunities, Innovation Week brings together the digital media, ICT, advertising, television, production and distribution communities for an engaging look at the 21st Century economy. This year's focus: social capital, internet ecosystems and networks, the heart of innovation, games, and the new canvas for creativity – communication, content, and distribution.

http://www.nextmediaevents.com/iw09/

Congratulations!

Coral CEA

for your $9.3 Million grant
from the Ontario Government.

Keep up the great work you are doing.

www.coralcea.net

OSBR.ca Readers

Founders of technology companies in Phase III of Lead to Win

Faculty and students of the Technology Innovation Management Program, Carleton University

Members of the Talent First Network

OSBR.ca The Open Source Business Resource

Lead to Win

TIM


MASSIVE INNOVATION
Next session starts November 3
Apply at www.LeadtoWin.ca
Lead to Win
Exciting new businesses that are in Lead to Win now!
selectstart
CheckInWiz
media
catwalk networks
SCTi
EclipseSource
Castel RESEARCH
zeebumobile
Videotelephony Inc.
NOVABRAIN TECHNOLOGIES Inc.
data bridge
EnTeraSec security
Accentway
Triple Thought Sustainability
SiliconPby
EvenuSix
the speed of success
cornerportal
SMART ROTOR SYSTEMS
MARKTEK
Clearview
NewEraHealth
MarkOff Security

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 knowledgable resources available through the OSBR.

Upcoming Editorial Themes

November 2009:	Co-Creation
December 2009:	Bootstrapping Startups
January 2010:	Mobile
February 2010:	Hosted Solutions
March 2010:	Consulting
April 2010:	Niche Markets

Formatting Guidelines:

All contributions are to be submitted in .txt or .rtf format.

Indicate if your submission has been previously published elsewhere.

Do not send articles shorter than 1500 words or longer than 3000 words.

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.

Include a 2-3 paragraph abstract that provides the key messages you will be presenting in the article.

Any quotations or references within the article text need attribution. The URL to an online reference is preferred; where no online reference exists, include the name of the person and the full title of the article or book containing the referenced text. If the reference is from a personal communication, ensure that you have permission to use the quote and include a comment to that effect.

Provide a 2-3 paragraph conclusion that summarizes the article's main points and leaves the reader with the most important messages.

If this is your first article, include a 75-150 word biography.

If there are any additional texts that would be of interest to readers, include their full title and location URL.

Include 5 keywords for the article's metadata to assist search engines in finding your article.

The Talent First Network program is funded in part by the Government of Ontario.

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.

Coral CEA is a member-based company whose mission is to assist companies of all sizes with the commercialization of communications-enabled applications (CEA). We are creating and anchoring a business ecosystem that leverages a unique, technical platform that provides advanced ICT building blocks to members. Visit http://www.coralcea.ca to become a member.