

DOING IT RIGHT: COLLABORATION, SHARED WORKSPACES, SYNDICATION AND BROADCASTING AT THE ANIMATED TUTORIAL SHARING PROJECT

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INTRODUCTION

Every day millions of people visit libraries. These individuals are faced with the challenge of understanding how to navigate and utilize an increasing number of digital collections. Reaching out to these users and assisting them with their needs is not always easy. Libraries now serve distance education and non-traditional students for whom time and distance serve as constraints to entering a library. They also serve the online generation whose preference may be only to enter the library virtually.

Many libraries are now turning to Flash tutorials to reach out and educate these users. Some libraries struggle to create them on their own but one initiative - the ANimated Tutorial Sharing Project (ANTS) - believes that there is a more productive method of creating tutorials: through collaboration. In this paper we will discuss how ANTS utilizes open source software, Creative Commons licensing, Web 2.0 technologies, as well as guidelines for the coordinated development of open educational resources (OERs), to create large numbers of current learning objects (LOs) that are also made widely available on popular brand sites via syndication. We will also discuss how ANTS' approach to coordinated development of quality OERs makes it the first library sharing project to have a sustainable approach to OER development.

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ANTS ORIGINS, HISTORY AND RATIONAL

The ANimated Tutorial Sharing Project began as a project of the Distance Education Forum of the Council of Prairie and Pacific University Libraries (COPPUL). In 2004 the group held an annual meeting, during which time it looked at the newest technology available for online instruction: screencasting. The Forum liked the features offered by screencasting software, identified it as useful for creating point-of-need database tutorials, but after deliberation concluded that the only way to create large numbers of current tutorials would be collaboratively. The Forum then asked the COPPUL Information Literacy Group to look into the possibility of doing so.

When the Information Literacy Group met in the Fall of 2004 they immediately understood that in order for collaboration to work effectively, it would need to address several issues related to usability, access, ease of use, and customization. It also decided to identify tutorials that were in demand and sought to find a way to enable people to keep track of the work occurring in other libraries so as to eliminate duplication of effort. Over time, the group was able to secure a home for these learning objects at the University of Calgary's DSpace¹. The group also completed its assessment of the needed tutorials and placed them on a wiki² where any participant could get an account and use it to communicate what they are working on. Soon after naming the project and finalizing its home page, the project was announced as the ANimated Tutorial Sharing Project³. Its working group then set about marketing the project and assessing its effectiveness.

Over time, the group identified problems related to display, playback and communication with the initial set-up. While promoting the project at conferences, ANTS members were also told that they should have their tutorials on YouTube,

that people wanted embedding code for each tutorial, and that the project should accept a wider array of tutorials.

In order to address all these issues the group identified several new sites. More specifically, (1) accounts were created at Screencast.com⁴ and BLIP.TV⁵ to host SWF and digital video files, and (2) a new wiki for the project was located at Wetpaint⁶. The video sites helped rectify issues with display, feeds, and embedding codes whereas the new wiki enabled ANTS to create a community for screencasters. Since the administration of these sites would take additional time from our volunteer team members, the team opted to bring in new members to help with these tasks in the Fall of 2007. With new sites, new team members and new expertise, ANTS evolved into the project it is today.

HOW ANTS WORKS

In its current conception, ANTS has been configured to be a central home for library screencasters. Some use it to access multiple files and embedding code for local use of ANTS tutorials. Others use its communications features to inform others of the work being done in their home institution. Some contribute files in the hope that their work will benefit users in other institutions - as well as better serve their own users. Still others visit the site looking for information to help them with screencasting.

Those wishing to add content begin by visiting the How to Contribute section of the ANTS wiki⁷. It tells screencasters to consult our list of Tutorials Identified for Development, select one, and then indicate that they are working on it by posting their name and contact information on the Wiki. As they do so they can choose from (a) a host of electronic resources and databases widely used in public, academic, and school libraries, or (b) any number of information literacy tutorials. By using the Wiki to indicate that a production of a tutorial is underway, librarians are able to communicate work across institutions and thereby eliminate duplication of effort.

The next step for any contributor is to consult our Guidelines for Tutorial Development⁸. The Guidelines were designed for database tutorials and they work to ensure that each e-resource tutorial is Authoritative, Modular, well Sequenced, Adaptable and Generic enough to be used in any library as created. These features also work to make the sharing of source code easier for those who wish to customize a tutorial for local use. In either case (i.e., used either as is or after adaptation), ANTS guidelines enable librarians in different institutions to develop content that all can agree is easy to use and useful.

Once production of a tutorial is completed, the contributor's next step is to upload files to the ANTS repository at DSpace. Those new to the project can consult one of three tutorials ANTS provides on uploading files. The tutorials tell contributors what files and metadata to include. They also indicate that the contributor will need to sign a Creative Commons, Attribution, Non-Commercial, Share-Alike 3.0 License. The Creative Commons license allows other librarians to download, modify, and re-use the tutorial content so long

as attribution is given to the original creator. Thus, a single tutorial can be shared, remixed, and repackaged among multiple libraries.

Upon uploading all files, metadata and signing the license, the process for the contributor is nearly complete. From here their tutorial is quickly reviewed. If it is accepted, the content is added to the ANTS repository and DSpace (1) notifies the contributor that their content has been accepted, and (2) sends out Notification of the new content to subscribers. The original creator then finalizes their involvement by going back to the Wiki; posting that the tutorial has been completed; and indicating that it is available from the repository. If a librarian has registered for e-mail notifications from the Wiki, it will also serve to notify them of the new content. At this point, any person receiving a notice can go to DSpace, view the tutorial, and access both its source code and SWF files.

In its initial iteration, the ANTS team felt that people would be happy with the source code and SWF files but calls for things like embedding code and files on YouTube, quickly disavowed us of that illusion and led to significant changes. So while some projects - such as Primo, CORIL, CLIP and ALPS - see the accepting of files as the end of the process, for ANTS, it is a prerequisite; it is something that enables the project to do more with a file. In particular, once a file is submitted to ANTS, the ANTS Team takes the file and migrates it to two additional sites with advanced sharing, notification and syndication features: Screencast.com (<http://www.screencast.com/users/ants>) and the Library Information literacy Online Network (LION TV) on blip.tv (<http://liontv.blip.tv/>).

Files are migrated to Screencast.com "" in order to take advantage of a site that (unlike YouTube) provides good resolution, the hosting of SWF files, notification options, and embedding code for SWF files. As Screencast.com is one of the few sites that not only allows, but welcomes, interactive SWF files, it is important for anyone who creates a tutorial with built-in quizzes or other forms of interaction.

blip.tv on the other hand does not accept SWF files, but it does (1) provide a host of sharing, notification, syndication, commenting and embedding features that are attractive to contributors and viewers alike, (2) enable the project to make additional multimedia files - such as FLV, AVI, WMV, and MPEG - available for use, (3) provide excellent information about each broadcast via metadata and descriptions - thereby ensuring attribution to the original creator, (4) enable the project to make library content discoverable on a wide range of sites, and (5) provide usage statistics allowing for assessment by the creator and the ANTS team.

For contributors the knowledge that LION TV will take their content, do necessary file conversions, and push both their content - and the related metadata - out onto popular brand sites is a significant incentive for participation. In particular, LION TV's ability to syndicate broadcasts to sites like Facebook, Blinkx, Internet Archive and iTunes, means that library created broadcasts are increasingly finding their way onto sites that many people visit on a daily basis - sites that enhance library

visibility in the online world. But perhaps the most critical impact of these video hosting sites is the impact they have on sharing. Librarians realize the value added to their content every time they upload files to ANTS and they understand that it is not something that they can easily achieve independent of the project.

Up to this point we have discussed the value of the ANTS project in terms of the files it creates and how it treats them. But ANTS also provides another service of value to screencasters: Community. While the ANTS guidelines and the initial Wiki were the forefathers of this community, real growth in among the ANTS community came about after: (1) ANTS changed from MediaWiki to Wetpaint - employing its Community Features and Discussion Forum; and (2) ANTS brought in new team members with a wide range of expertise and a willingness to use the wiki's community features to share what they know.

The new Wiki and team members have enhanced the sharing of knowledge among screencasters. Team members have committed time and energy to developing the discussion forum of the wiki, where they answer questions related to library screencasting⁹. They also developed new sections of the wiki – such as the Best Practices in Screencasting section¹⁰ – to help provide guidance and foster dialogue among users. In addition, Wetpaint wiki users can create profiles and communicate with each other¹¹. Collectively, these initiatives are contributing to the growth of a library screencasting community where professionals share knowledge and learn from the work done by others ... a community of synergy ... a community where the “wisdom of the hive” can thrive. As more and more screencasters join the “hive,” the value of collaboration and virtual teamwork is increasingly being recognized. Given our own experiences benefiting from the knowledge of our colleagues in the ANTS Team – and the subsequent synergy arising from shared knowledge – the ANTS Team recognizes the value of community and supports it as a means to lead to the exponential growth in knowledge of screencasting.

COLLABORATION, SYNDICATION AND SUSTAINABILITY – OR WHY ANTS IS THE FUTURE OF LIBRARY OERS

“[T]he sustainability of OERs - in a fashion that renders them at once both affordable and usable - requires that we think of OERs as ... part of a larger picture, one that includes volunteers and incentives, community and partnerships, co-production and sharing, distributed management and control.”¹²

Up until now we have discussed what ANTS is and how people use it. While it is useful to know its functionality, it is perhaps more important to understand what makes ANTS stand out from other projects that house library learning objects - and this quality can be summed up in one word: *sustainability*.

Sustainability refers to the ability of the ANTS project to continually create, maintain, and make discoverable “a critical mass of [current] Open Source tutorials”¹³ that can be

easily accessed and used. This is not an easy achievement as the sheer number of e-resources available at even the smallest libraries means there is a lot of content to create - and the Diaspora of library users in the online world means that the content must also be everywhere our users are. As no one library could even begin to develop and syndicate the number of learning objects required, the only conceivable way of doing this is to collaborate.

Increasingly the ANTS project has looked towards the Open Educational Resources (OER) community for collaborative models. Like the Open Access community, the OER community thinks that educational resources created by academics should be made freely available. They also recognize that given the cost of creating learning objects, the only sustainable method of developing enough of them is through sharing content and this, in turn, means that LOs need to be useful to any student in any institution. In the OER world emphasis is placed on a number of technical, licensing, funding and content requirements which make OERs useful - requirements which say that OERs need to be Authoritative, Modular, Adaptable, Interoperable, Easy to Use, Discoverable, Accessible, Convenient, Affordable and Available to anyone who wants to use it for Free.¹⁴ These requirements are deemed to be essential if the educational world hopes to find an affordable way of developing quality learning objects for online learners.

If one looks at the parameters laid out for usefulness by the OER community; and then looks at ANTS licensing, guidelines, content, various sites, and its use of syndication technology; one can see that ANTS Tutorials are Authoritative, Modular, Adaptable, Interoperable, Easy to Use, Discoverable, Accessible, Convenient, and Freely Available for anyone who wants to use them. This, in turn, leaves the issue of Affordability to be addressed.

Affordability - in the OER world - means more than the cost of consuming an OER – it also means the cost of producing it. In the case of ANTS, the project uses what is known as a Co-Producer model - where consumers of the resources take an active hand in production. Such projects are typically decentralized in their management, may involve partnerships, require less funding and - as in ANTS case - rely on volunteers¹⁵. By distributing the workload among volunteers and using a number of free publicly available hosted sites the ANTS project remains largely affordable. At this time, the greatest hurdle to overcome with respect to affordability is training and the cost of screencast software (about \$250.00) which some libraries are struggling to fund. However, ANTS has identified a number of strategies that would enable us to train individuals and possibly provide access to screencasting software. Most ideas are in their infancy, but they are being actively pursued.

But none of this would matter if ANTS were not able to attract volunteers. Happily, it is increasingly doing so. Many people respect and support the project's goals and they have clearly delineated roles that they can understand¹⁶. The modular nature of content development also makes contributing content more feasible for developers¹⁷. As the project is open source,

it benefits greatly from altruism¹⁸. Similarly, like open access publications, OERs will receive more usage so contributors know that their work will have a greater impact and they can even measure their impact by accessing usage statistics from many of our sites if they need to do so when seeking tenure or promotion. The large increase in the project's data after we introduced LION TV indicates that people see the value of syndication and this, in turn, has led to more interest in the project¹⁹. Finally, the community features being developed on the Wiki, are important for developing the kind of community needed to support a volunteer project in the long term.

Upon assessing ANTS collaborative infrastructure for shared development of large numbers of OERs, and its various incentives given to volunteers (including attribution, syndication, community and altruism) it should be clear that ANTS is a different type of sharing project. Presently there are many sites that ask librarians to contribute content, but ANTS offers the means of developing and syndicating content that moves it beyond a mere repository. It offers libraries a sustainable means of developing the content their users need and making it visible to them. That is why we believe that ANTS is Doing it Right.

**“FORGING A MOVEMENT ON SHIFTING GROUND”:
THE FUTURE OF ANTS AND COLLABORATIVE
LIBRARIANSHIP**

While there are many projects built around sharing library learning objects, only ANTS is built on a model that strives for sustainable development of large numbers of authoritative and useful OERs that are visible to users online. Its means of rationalizing development and syndicating content makes ANTS different from other projects as it offers stressed libraries the means of reaching out and educating users in an affordable fashion.

Although much has been accomplished, the fast pace of change means that even a multifaceted project like ANTS is faced with the need to continually assess what it does if it is to remain relevant. Consequently, the ANTS team is constantly asking what needs to happen in order to grow our number of contributors. Critical to participation is the need to remain relevant with emerging technology in order to ensure that our learning objects receive the maximum usage. Consequently, ANTS is looking at the need to address several important issues.

Front and foremost is the need to deal with how to design learning objects that work well on handheld devices. Another issue is the emergence of high definition digital video on the web. A third is the need to get content onto iTunes University and other popular web sites. These new sites and design issues are ones that will likely require additional team members with the prerequisite expertise. This, in turn, will contribute to a new synergy within the group - moving the project further towards its goal of being the pre-eminent model for collaborative development of library OERs.

ENDNOTES

- 1 <https://dspace.ucalgary.ca/handle/1880/43471>
- 2 http://wiki.uwinnipeg.ca/index.php/COPPUL_Tutorials
- 3 <http://www.brandonu.ca/library/coppul/>
- 4 <http://www.screencast.com/users/ants/>
- 5 <http://liontv.blip.tv/>
- 6 <http://ants.wetpaint.com/>
- 7 <http://ants.wetpaint.com/page/How+to+Contribute/>
- 8 <http://www.acts.twu.ca/Library/antsguidelines2008.htm/>
- 9 <http://ants.wetpaint.com/thread/>
- 10 <http://ants.wetpaint.com/page/Best+Practices+in+Screencasting/>
- 11 <http://ants.wetpaint.com/accountSearch/all/>
- 12 Downes, Stephen. 2007. Models for Sustainable Open Educational Resources . Interdisciplinary Journal of Knowledge and Learning Objects. v 3, p. 41. Available Online: <http://ijklo.org/Volume3/IJKLOv3p029-044Downes.pdf> Retrieved: December 2008.
- 13 <http://ants.wetpaint.com/page/About+the+ANTS+Project/>
- 14 Downes. Most indicators are discussed on pgs 31-32 under section What is Open. Other technical requirements (Discoverable, Modular, Interoperable) discussed on p. 36 in section on Technical Models.
- 15 Downes. p. 40
- 16 In his article, Downes talks about the affordability of a volunteer model for developing OERS but indicates such a model needs Vision, Strategy and a clear Role for participants to be effective. Downes. p. 39
- 17 In the OECD report Giving Knowledge for Free, the authors indicate that one reason for the success of the volunteer Open Source software movement is that “many people can contribute small modules [and this means that the] task looks more attractive when one does not need to devote too much time to it.” Center for Educational Research and Innovation, OECD . 2007. Giving Knowledge for Free: The Emergence of Open Educational Resources. p. 92 .Available Online for Download at: http://www.oecd.org/document/41/0,3343,en_2649_35845581_38659497_1_1_1_1,00.html. Retrieved March 2009 .This conclusion is also shared by Utpal Dholakia in relation to his experiences working with OERS. See: Dholakia, Utpal M. et al. May 2006. What Makes an Open Education Program

Sustainable? The Case of Connexions. p. 6-7 . Available Online: <http://www.oecd.org/dataoecd/3/6/36781781.pdf> Retrieved March 2009 .

- 18 In his article Downes cites another study that states “The main motivation or incentive for people to make OER material available freely is that the material might be adopted by others and maybe even modified or improved” – in other words Altruism. Downes . p. 39
- 19 Since announcing LION TV – with its ability to syndicate broadcasts - in the Spring of 2008, Views and Downloads of files went up dramatically as is evident from our oldest source of data: DSpace. <https://dspace.ucalgary.ca/stats?level=collection&type=access&page=downviews-series&pyear=2009&mesfim=04&anoinicio=2009&start=01-04-2009&end=13-04-2009&mesinicio=01&anofim=2009&pmonth=04&object=collection&object-id=159> After our announcement our wiki also saw a large number of registrants, which now stands at over 270 members and we also have fans on our Facebook site. <http://www.facebook.com/pages/LION-Library-Information-literacy-Online-Network/26633613400?ref=ts> All of this points towards an increase in awareness and value of the project that is translating into questions about contributing to the project.