Video for Wikipedia
AND THE Open Web
Version 1.0

A Guide to Best Practices for
Cultural and Educational Institutions

October 2010

An Intelligent Television White Paper
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# Video for Wikipedia and the Open Web

A Guide to Best Practices for Cultural and Educational Institutions

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Knowledge is our most important business. The success of almost all our other business depends on it, but its value is not only economic. The pursuit, production, dissemination, application, and preservation of knowledge are the central activities of a civilization.

THE MARKETPLACE OF IDEAS

A. MOVING IMAGES FOR THE WEB

Video, in many ways, is our newest vernacular—comprising 80 percent of worldwide web traffic today. It will reach over 90 percent, according to many estimates, by 2013. Such is the scale of its use that the amount of video uploaded to YouTube—and YouTube alone—on the average single day would take one person working nine to five (on nothing else) 15 years to watch. Yet it is an open question how much of the world’s video online today is of value to culture and education. The BBC Archive has digitized and put online less than 5 percent of its holdings, for example. ITN Source has processed less than 1 percent of its news and documentary resources (over 1 million hours). Likewise the British Film Institute has moved less than 1 percent of its authoritative films catalog online. And this is to say nothing of the analog collections at the Library of Congress, U.S. National Archives, or for that matter the program libraries and movie catalogs from the leading television networks and film studios around the globe.

Still, cultural and educational institutions are making new efforts to participate in the world’s video conversation. Universities, libraries, museums, and archives are actively digitizing their audiovisual collections and records of those materials and putting that information on the web. Universities such as MIT, Yale, and Oxford, for example, are posting thousands of hours of video content from their courses online for free, for everyone. Museums such as the Smithsonian Institution and Amsterdam’s Tropical Museum are establishing new types of information commons and access strategies that soon will feature moving image resources. Sector-wide national initiatives, such as Film & Sound Online in the United Kingdom and Sound & Vision in the Netherlands and multinational projects such as the 19-country-member EUScreen project are putting hundreds of thousands of hours of archival footage online. New productions sponsored by educational consortia are also taking root and going up, with topics and disciplines ranging across all of the humanities, sciences, and vocations.3

While these efforts are substantial, current resource constraints, digitization challenges, and outdated legal and business frameworks will keep quality video subordinate to moving images from poor-quality pirated works, user-generated content, and pornography for some time to come. Philanthropic foundations, government agencies, and public-private partnerships involving firms such as Amazon, Apple, Google, and the Internet Archive are enabling a number of educational and cultural institutions to launch online video projects—but not at scale. Technologies and processes for the mass digitization of film and television collections are not yet cost-effective enough for these institutions to take the steps necessary to put the good rich media they hold, produce, and plan to produce online. Copyright laws remain out-of-step and cast a pall over institutions who hesitate to move online, out of what has been called an excessive deference to often invisible and possibly even nonexistent rightsholders.4 And knotty production contracts and donor agreements executed before the full-on arrival of the Internet continue to stymie professionals seeking to make this kind of media accessible in the sector.

New opportunities are arising, however, to jump-start progress so that more video from the world’s leading cultural and educational institutions is made openly available to meet the growing

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the demand for quality content. Some of these opportunities will provide for more flexible and distributed systems than traditional video-on-demand delivery and take advantage of the open web. One of the most substantial is the effort launched in 2009 by the Ford Foundation, Mozilla Foundation, and others to help stakeholders in quality video make that video accessible online to the broadest possible audience using Wikipedia and open licensing. This effort embraces the distributed nature of the web, with potentially huge viewership and engagement returns for cultural and educational institutions on relatively minor investments.

The Open Video Alliance and iCommons, with support from the Ford Foundation, have commissioned Intelligent Television to begin to provide a practical and theoretical framework for cultural and educational institutions to provide more of their moving images cost-effectively to Wikipedia and, by extension, to the open web. This white paper is the first result of that commission.

B. THE FUTURE OF VIDEO

This new effort takes advantage of a movement toward open video—a movement that has its roots in the free software movement that is largely powering the web today and which, through companies such as Apache, IBM, Mozilla, Oracle and Red Hat, has resulted in trillions of dollars of value creation for the stakeholders involved. The open or open-source video movement recognizes the contributions from, but also the limitations inherent in, the video work of industry leaders such as Adobe, Apple, and Microsoft. Flash, Quicktime, Windows Media and Silverlight are handsome technologies. But they have been developed and controlled by commercial companies that often protect themselves against innovations by outside coders, designers, developers, programmers—technologists, lawyers, producers, and educators keen to move away from proprietary solutions that are delivered for the benefit of shareholders first and the billions of everyday people who connect via the web a pale second.

The open video movement recognizes the importance of rights and licensing strategies designed to create profit or serve national interests, but it is critical of systems that prohibit access to film and sound assets becoming part of our collective audiovisual

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I. INTRODUCTION: WIKIPEDIA, VIDEO, AND EDUCATION

VIDEO FOR WIKIPEDIA AND THE OPEN WEB

Radio and television—especially in the American case—have missed many opportunities systematically nurture and protect cultural and educational content. Today we stand at another fork in the road...

A fully featured video stack—including content ingestion and transcoding, media management, hosting and streaming, publishing, syndication, analytics, monetization and more—is a very complex issue, which is unlikely to be achieved by a single company in one shot. Open source video offers an alternative. By creating a global community of developers—who each focus on their own layer of the stack, and by then releasing all the code for free, open source video promises a robust infrastructure that is at one and the same time easy to adopt, adapt, and modify, and cheap to deploy and operate. Developers enjoy full flexibility and an open framework to innovate and customize their own solutions while leveraging the community’s work, and enterprises benefit from economies of scale.7

Beyond the technology dimension lies our relationship as citizens to the system of mass communications. Radio and television—especially in the American case—have missed many opportunities systematically nurture and protect cultural and educational content.8 Today we stand at another fork in the road with the development of Internet video, as commercial companies may seek to control things for private rather than public gain.9 The return on investment in open, rather than proprietary, video solutions

moving forward will likely be great for all stakeholders—technologists, producers, the educational sector (especially) and the public. Open video advocates make the point from a variety of different perspectives.

C. WHY WIKIPEDIA?

Wikipedia is, as it describes itself, a “multilingual, web-based, free-content encyclopedia”—one based on open technologies. One of the 10 most popular websites in the world, it attracts over 65 million visitors a month. Search on any proper place name or location, and chances are that Wikipedia will be the top result—or close to it. According to the site,

There are more than 91,000 active contributors working on more than 15 million articles in 270 languages. As of June 30, there are 3,338,186 articles in English. Every day, hundreds of thousands of visitors from around the world collectively make tens of thousands of edits and create thousands of new articles to augment the knowledge.
Facing such a popular portal to free knowledge, many cultural and educational institutions are drawn to Wikipedia’s potential to steer traffic from visitors to their sites through Wikipedia’s linking, citation, and referral policies (see Section II, E).

Wikipedia’s intention is to contain only existing knowledge that is verifiable from other sources, “the rules go,” and so original and unverifiable works are excluded. Furthermore, the site requires that article contributions represent a “neutral point of view,” rather than reflect one side or one interpretation of an event or story. Open to anyone who wants to contribute, it is “a massive live collaboration, continually updated, with the creation or updating of articles on historic events within hours, minutes, or even seconds, rather than months or years for printed encyclopedia.”\(^{10}\) It also guarantees attribution to sources and edits and provides users with transparent histories of article changes and user analytics—a kind of zero-cost Nielsen media research service for those interested in distributing their media online.

It is also freely available and free of advertising. Powered by thousands of volunteers and millions of dollars in funding raised from foundations and contributors for the non-profit Wikimedia Foundation, it is unlikely to ever close itself off to new contributors, as some online communities have. The project cites four freedoms as core to its content and technologies—the freedom to use; the freedom to study; the freedom to redistribute; and the freedom to change.\(^{11}\) Any content contributions that contain provisions that might restrict any one of these core freedoms are forbidden and will be removed.\(^{12}\) It is thus the freest as well as the largest and most popular media commons on the web.

Though rich in text, images, and sounds, in moving images Wikipedia is wanting. The Wikimedia Commons, where rich media resides as it gets incorporated into Wikimedia articles, contains 7 million items. Only a few thousand of these today are moving image resources; most in fact are photographs.\(^{13}\) This is in part because tools to play, annotate, and edit video in free/libre open-source software (FLOSS) formats have, until now, not been widely distributed, and in part because moving image media that is freely open to redistribution and reuse—without limits—has not been made available in great numbers online.


\(^{11}\) www.freedomdefined.org


All that is now about to change. With the investment of public and charitable foundations (including the Ford Foundation and Mozilla), private underwriters (including the video technology firm Kaltura), and sister organizations, the Wikipedia community has been developing open-source technologies and know-how to enable video to be welcomed as a true new medium for the site in 2010. The addition of video to Wikipedia is an ambitious project, with the goal of facilitating video editing in ways that are as intuitive as editing a text article is today.

The transition to a more media-rich encyclopedia, and the development of video tools for the site, will happen over time. As of September 2010, Wikipedia is accepting video clips that are up to 100 megabytes in size to complement current text articles. These clips should be made available for liberal reuse—with permissions for download and remix—and in open technology formats (a conversion process that Wikipedia is now able to automate). Soon, editing and annotation, tagging, and hyperlinking technologies will be present to enable videos to be edited online—and edited collaboratively—with the same facility as text is today.¹⁴

As these doors open, universities, museums, libraries, and archives naturally are invited to add media that in turn adds to knowledge online.

¹⁴ http://usability.wikimedia.org/wiki/Multimedia:Hub

PHOTO The HTML5 media sequencer, jointly developed by Kaltura and Wikimedia and currently in testing, enables users to stitch openly-licensed assets into long-form video entries. This browser-based collaborative editing holds tremendous potential for archival reuse and new media education. (User Mdale CC-BY-SA 3.0)

As of August 2010, Wikipedia is accepting video clips up to 2 minutes long that are up to 100 megabytes in size to complement current text articles. These clips should be made available for liberal reuse—with permissions for download and remix—and in open technology formats (a conversion process that Wikipedia is now able to automate).
II. Requirements, Risks, and Rewards

“Knowledge is social memory, a connection to the past; and it is social hope, an investment in the future.”

Let’s say your university, museum, library, or archive has video, and you’d like to consider sharing it online. Or, your institution is about to produce some video and you think it might be a good fit for articles on the site. This white paper will help take you through steps needed to appreciate and meet Wikipedia’s technology and legal/license requirements. Once these requirements have been met, your video will be free to distribute and redistribute online or via any medium to anyone for any purpose forever. The white paper also will help take you through the risks and rewards for institutions in adding video to Wikipedia.

In technical terms, currently Wikipedia is ready to host small moving image files—under 100 megabytes—that are in an open-source format. If your moving image clips are currently in digital form, the hardest steps are already behind you, and the marginal cost of putting them on Wikipedia is low. In a nutshell, that cost is likely to be the human cost of converting the clip from one digital moving image format to another (there are free converters, as we explore below) and clearing the rights to it so that it can carry a free license that conforms with the encyclopedia’s four basic freedoms.

As you look at the best videos you have for posting on Wikipedia, consider the following three requirements.

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**REQUIREMENT 1: A NEUTRAL POINT OF VIEW**

In substantive terms, Wikipedia is an encyclopedia, and so requires all contributions to reflect a “neutral point of view”; indeed, the encyclopedia describes this “NPOV” policy as a bedrock principle, along with verifiability and no original research, the two other editorial cornerstones.¹⁶

Video, with components including images, sounds, and text, is more difficult than text alone to patrol for this requirement. Simple animations easily pass this hurdle, and so can, for example, moving images of animals in nature.

![Polar Bear](http://en.wikipedia.org/wiki/Polar_bear)

But once a clip has a voiceover, even the narrator’s inflection may need to be scrutinized. Camera angles, lighting, and music, among other intentional production factors, all contribute to the tone and shape the editorial content of the video.

Wikipedia is adverse to advertising and commercialization and branding for non-commercial enterprises. Video watermarking is disallowed and any potential commercialization of Wikipedia’s online space (by, for example, footage-sales divisions of public broadcasters and archives) are forbidden.

Wikipedia and web communication generally are still at the beginning of a long process of self-definition when it comes to video. The twin challenges of providing for neutral and objective information and a platform for collaborative editing of all media (not just text) will require the site to develop detailed policies for the NPOV editorial requirement when it comes to moving images and sound. The publication of such policies will be developed on Wikipedia here:


and where the section on “Images and other media” is now outlined a full suite of policies and manuals of style for moving images will need to be defined. Quite naturally, cultural and educational institutions whose primary mission is education would be natural advocates for the establishment of such guidelines—guidelines that will be developed as video in practice gets added frequently and centrally to the site.

For now, Wikipedia is focused on captioning and contextualizing (largely through text) the photos, audio, and video that are beginning to appear. For example, the article “Falklands War” in English and Spanish (http://es.wikipedia.org/wiki/Guerra_de_las_Malvinas) includes a long, freely licensed video clip from Argentinian television—Britain’s opponent in the war.
The clip itself reflects some bias, but it is welcomed in the encyclopedia because it is captioned and contextualized appropriately. As the NPOV policies for video become defined by the community, video that is published will be under special obligations to be given fair weight and contextualization through text annotation—including annotation about its production context and point of view.

**REQUIREMENT 2: AN OPEN-SOURCE VIDEO FILE**

A video codec is “a device or software that enables video compression for digital video.” While moving images used to be stored on paper, then film, then magnetic tape, it was with the introduction of the compact disk for storing digital audio that it became feasible to consider storing and using digital video as well. Since that time, as Wikipedia notes, engineers, mathematicians, and scientists working on these technologies have been addressing the “complex balance between the video quality, the quantity of the data needed to represent it (also known as the bit rate), the complexity of the encoding and decoding algorithms, robustness to data losses and errors, ease of editing, random access, the state of the art of compression algorithm design, end-to-end delay, and a number of other factors.”17

For video to be made available to Wikipedia, it has to be made available in open-source and royalty-free codecs. Many of the video codecs that have been widely available to web users to date have been owned or licensed by private interests who can control uses and costs associated with their codecs and thus they fall outside of the free-software requirements of the encyclopedia.18

To date, the favored format for video contributions to the Wikimedia Commons is Ogg Theora. Theora is the most widely distributed open codec, but critics note that it is less efficient than proprietary solutions like H.264. In February 2010, progress in open-source video began in accelerate. In mid-2010, Google, in partnership with Mozilla, Adobe, Opera, and others announced the WebM codec—an “open, royalty-free, media file format”—built upon On2’s VP8 video technology and Vorbis audio. In 2011, WebM will take hold as the de facto open-source codec on the web, overtaking Ogg Theora.

As of August 2010, the 1 million most popular YouTube videos are
available on the YouTube site in WebM, and YouTube will support WebM for all uploaded videos. By the end of 2010, WebM video will be natively playable in the newest versions of the Firefox, Chrome, and Opera browsers, as well as Android mobile devices. Users of the latest Internet Explorer and Safari browsers will be able to install a simple piece of free software to enable playback. In 2011, the Adobe Flash player will also add support for the WebM codec, adding up to 1 billion new users to the WebM installed base. With broad industry support and quality that meets or exceeds the current industry standard H264 video, WebM is poised to become the next-generation video standard for the web. Wikimedia projects will soon support WebM as well as Theora.

Content on Wikipedia must be stored using open technology formats, again to insure that no license fees for technology will ever be owed by the Wikimedia Foundation or any users of this media downstream. Fortunately, embracing open formats is a relatively trivial task, and the conversion of existing assets into open-formatted versions is easily added to most production or digitization workflows. For smaller contributors, the Wikipedia community already offers tools which automatically convert files from, for example, Quicktime and Flash, simultaneous with uploading to the Commons archive. In 2010, as as part of a campaign to encourage individual video contributions to the Wikimedia Commons, the Participatory Culture Foundation developed and released the Miro Converter, a free, automatic converter which creates Wikimedia-ready files from almost any existing asset with no prior technical knowledge necessary. The Wikipedia community has embraced the Converter, and any user who wants to upload open-video formats can do so, again with the push of a button.

**Requirement 3: A Free and Open License**

Legal and business issues involved in clearing video for online use constitute a tricky thicket. Behind every minute of video, especially professionally produced video, can lie a galaxy of extraordinary creative talent, production skill, and technical expertise—and behind that another galaxy of contracts and agreements repre-

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senting thousands of dollars of investment and possible payouts for producers, directors, cinematographers, cameramen, photographers, film and video editors, writers of scripts, writers of songs, writers of music, actors, singers, musicians, dancers, choreographers, narrators, animators, and puppeteers, whole other worlds of content from music and book publishing and the film business who may have sold or otherwise licensed rights to the production, and then too the dozens, sometimes hundreds, of artists, designers, engineers, and others who helped to make productions complete the journey from idea to finished work.

These creators and producers often have business contracts describing the compensation and credits they receive and the rights they have licensed to their work for specific media uses (television, radio, DVD, online, for example) and, still, even in this broadly networked world, autonomous “territories” (such as North America). They often will be represented by unions and guilds who engage in collective bargaining with networks and producers to determine pay scales and equity participation on behalf of their members. Many of the classic films and television programs that we know as our common cultural reference points are governed by contracts that can be several decades old—“heavily guilded” agreements, concluded well before the advent of the Internet. In order to put this material online—to say nothing of available for download and reuse—we have to work through these rights agreements with the owners and producers of the content.

Wikipedia’s policies for moving images are still in the earliest stages of formation in mid-2010, but they are being governed by rights policies to which all Wikipedia additions and edits must adhere. These policies, outlined on the site here:


define the site’s rights rules as follows:

Most of Wikipedia’s text and many of its images are co-licensed under the Creative Commons Attribution-Sharealike 3.0 Unported License (CC-BY-SA) and the GNU Free Documentation License (GFDL) (unversioned, with no invariant sections, front-cover texts, or back-cover texts). Some text has been imported only under CC-BY-SA and CC-BY-SA-compatible license and cannot be reused under GFDL; such text will be identified either on the page footer, in the page history or the discussion page of the article that utilizes the text. Every image has a description page which indicates the license under which it is released or, if it is non-free, the rationale under which it is used.

The licenses Wikipedia uses grant free access to our content in the same sense that free software is licensed freely. Wikipedia content can be copied, modified, and redistributed if and only if the copied version is made available on the same terms to others and acknowledgment of the authors of the Wikipedia article used is included (a link back to the article is generally thought to satisfy the attribution requirement; see below for more details). Copied Wikipedia content will therefore remain free under appropriate license and can continue to be used by anyone subject to certain restrictions, most of which aim to ensure that freedom.22

There are six major Creative Commons licenses:

- Attribution (CC-BY)
- Attribution Share Alike (CC-BY-SA)
- Attribution No Derivatives (CC-BY-ND)
- Attribution Non-Commercial (CC-BY-NC)
- Attribution Non-Commercial Share Alike (CC-BY-NC-SA)
- Attribution Non-Commercial No Derivatives (CC-BY-NC-ND)

Each Creative Commons license is a configuration of the following four conditions: Attribution (BY), whether use of the material requires attribution to the original author; Share Alike (SA), whether derivative works can be produced under the same or a similar license; Non-Commercial (NC), whether the work can be used for commercial purposes; and No Derivative Works (ND), whether only the original work can be transmitted, without derivatives. As of the current versions, all Creative Commons licenses allow the “core right” to redistribute a work for non-commercial purposes without modification. According to Creative Commons, the exercise of NC and ND options, however, make a work non-free:

CC licenses permit attribution “in the manner specified” by the asset owner. Any institution can specify a robust or detailed attribution scheme, although the Wikipedia community may decline to use an asset on a given page if it comes with an onerous set of requirements. (Simple, as a rule, is good.) Furthermore, institutions who wish to maintain certain customized business models may also consider dual or non-exclusive licensing, details for which can be found online:

http://wiki.creativecommons.org/Frequently_Asked_Questions#Can_I_still_make_money_from_a_work_I_make_available_under_a_Creative_Commons_licenses.3F

For video to be made available on Wikipedia, the Wikimedia
community encourages it to be cleared without restriction, for attribution/share-alike licensing. Multimedia files are obviously more complex than text files, however, and often a single video clip can have multiple rightsholders. All components of the clip one intends to upload should be cleared for such a license—the video footage, sounds and music, images, likenesses; in a word, the complete range of components licensable in a moving image clip. These component licenses will need to be compatible with each other and with the other content in the encyclopedia. That said, the Wikipedia community recognizes that video will remain—for a time—a subsidiary component of a text-centric encyclopedia. Because texts that get incorporated are de facto “derivative works” once they start being edited, they all are made available under one license—CC-BY-SA. For as long as multimedia remains a standalone piece within a larger textual article, the community will allow a broader set of free licenses—public domain and CC-BY among them—to govern.

Over time, the components to multimedia will be able to be seen and edited in the equivalent of video editing software timelines and sequencers. These components also will be tagged—manually at first and then increasingly via automated methods via systems that have yet to be fully determined. As with many tagging processes on Wikipedia, solutions will be developed in by the community, working in common:


As cultural and educational institutions develop the will to add masses of moving images to the site, much as leadership institutions have been working with static images,²³ they may need to develop a more mechanical, semi-automated solution for the digitization of analog film and video assets. Staging areas or “skunkworks” environments for experimentation with formats, automated tagging, automated captioning, other aspects of moving image provision for online viewers will proliferate. [Opportunities for service providers in these areas are likely to be substantial.]

RISKS: THE PUBLIC CHANGES THE ORIGINAL WORK

The risks of putting audiovisual assets—powerful and memorable as they can be—online, and then online for download, and then again online for reuse are at, at least theoretically, significant. First among these are risks that video users will misappropriate the video, especially if it includes iconic imagery, and perhaps publish that video to promote purposes with which the source institution, creator, or owner would not agree. Other hazards include opening comments to pranksters, cranks, and liars, and to individuals and groups whose intentions may not be entirely noble. The prospect of diminishing the value of the original work is very real.

Wikipedia is a dynamic environment, however; the site itself speaks of how “Wikipedia is continually updated, with the creation or updating of articles on historic events within hours, minutes, or even seconds, rather than months or years for printed encyclopedias.” Over 90,000 contributors are at work on the site working primarily with the text entries. As video matures, and the technological sophistication of editors specializing in video catches up, thousands of volunteer editors will be able to correct mistakes and graffiti and specifically patrol the video contributions with the same or better efficiency as they do now with other media.
The larger issue involves agita on the part of cultural and educational institutions toward the downloading and reuse of their particular, and especially their iconic, videos. Institutions will cede exclusive control of the distribution of their content, no question. As of mid-2010, simple and free technology exists for every computer user to be able to capture and download streaming—sometimes promoted as “streaming-only”—video at the click of a button. “Streaming-only” or digitally-protected video is thus a technological mirage. Cultural and educational institutions with video online (or on physically distributed media such as DVDs) have noted that low-quality versions of their material sometimes appear on YouTube and elsewhere. If an institution is participating in promoting itself online, it is exposed to this risk of engaging with the public already—public use and misuse not only of its videos, but of its logos, images, and its basic digital identity. This is a fact of online life.\footnote{Grimmelman, “The Internet is a Semicommons.”}

An alternative set of questions may revolve around whether the wisdom of the crowd might not improve institutional presences in many ways.\footnote{See James Surowiecki’s presentation at Intelligent Television’s symposium, “The Economics of Open Content,” online at http://forum-network.org/lecture/economics-open-content-keynote; and Roy Rosenzweig, “Can History Be Open Source? Wikipedia and the Future of the Past,” The Journal of American History, June 2006, online at: http://www.historycooperative.org/cgi-bin/justtop.cgi?act=justtop&url=http://www.historycooperative.org/journals/jah/93.1/rosenzweig.html.} Wikipedia can be said to be a testing ground for the wider web, and the attitudes of cultural and educational institutions toward adding material to it will be shaped by, and in turn shape, their attitudes toward public communication online. And, to this point, institutions that contribute video to Wikipedia and the Wikimedia Commons are shaping and contextualizing the ways in which their video can be encountered on the web.

**REWARDS: ATTRIBUTION, ANALYTICS, AND PARTICIPATION**

With tens of millions of unique visitors a day, Wikipedia is one of the ten most trafficked sites in the world. Citations in the encyclopedia that link to cultural and educational institutions regularly account for heavy traffic to those institutions’ websites. In April 2010, just for one example, the New York Public Library provided this research effort with top referral sources for its online image gallery. Google Images and Google.com ranked first and third, respectively; the official site of the city of New York ranked second; and Wikipedia ranked fourth.
The dynamics are often similar for other cultural and educational institutions.

Wikipedia is now developing attribution protocols for the ways that articles on the site into which moving images have been added can link to and direct users to sources on cultural and educational institution websites. Among the issues being discussed by the Wikipedia community for text-based referrals are, Should links be only to institution home pages? Can other stable urls be included, such as web pages for important collections within a library? Can links be provided to item-level urls?

For video, the situation presents many dimensions. As images in the encyclopedia slowly get replaced with moving images, will links be provided directly from the image on view or will they need to be pushed to the bottom of the article bibliography? The possibility to provide hyperlinks to sources from the videos themselves as they are playing will also arise, and be cause for Wikipedia policy formations to percolate even further. Stakes will rise if and when video is featured on Wikipedia’s daily main page, which can receive as many as 30 million views a day.

Cultural and educational institutions have the opportunity to help determine how Wikipedia policies evolve by getting involved in the discussions as they are unfolding. Such discussions—taking

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26 http://www.drumbeat.org/project/webmademovie
Indeed, by working with Wikipedia institutions are helping to make their rich media assets machine-readable—perhaps the key objective for those in the business of making collections accessible and noticed for fundraising purposes.

By participating in the great video conversation on the web, cultural and educational institutions have the ability to engage the public; have the public increase the online visibility of the institution’s media; educate people; enable fortuitous discovery; and even facilitate business opportunities for clip and image licensing. It is also the case that once definitive information is added to Wikipedia from a venerable institutional source, the information is likely to reach millions who might not otherwise have seen it.

27 See Erik Moeller’s blogs on this point, at http://blog.wikimedia.org/2010/enriching-wikimedia-commons-a-virtuous-circle/
30 Michael Jensen, “The New Metrics of Scholarly Authority,” Chronicle of Higher Education, June 15, 2007, online at: http://chronicle.com/article/The-New-Metrics-of-Scholarly/5449; Kaufman and Albon, Funding Media, Strengthening Democracy, p. 15. As Jeff Ubois noted in a comment on an earlier draft of this paper, when cultural and educational institutions look to nominally free services like YouTube for video distribution, they may wind up ceding rights (by agreeing to onerous terms of service) to the valuable crowdsourced metadata that accretes.
As you prepare to add your institution’s video content to Wikipedia, we recommend that you select an initial sample of video content that is among your institution’s most powerful and unique pieces—video that helps to represent your institution and its mission. Once you have identified that initial piece of video—video that, per the above, has a neutral point of view; can be converted to an open format; and that is not rights-encumbered—you are ready to begin!

The following workflow illustrates how single-asset uploads can work. There are several methods of adding video to Wikipedia, but this is the easiest. For batch uploads (an entire collection, for instance) we recommend working with a local Wikimedia chapter to facilitate a custom ingestion process.

Since video on Wikipedia is still developing, this workflow is likely to undergo slight changes. We will highlight steps that are likely to change in the future. This tutorial will periodically be updated to ensure it is correct and up-to-date. Last update: September 16, 2010. A video walkthrough is available at http://openvideoalliance.org/wiki.

When you add a video to Wikipedia, you're actually taking two steps: 1) uploading the file; and 2) adding a reference to the file in the correct page.

Generally, the video asset you upload will be stored in the Wikimedia Commons—the media archive for all Wikimedia Foundation’s projects, including (most famously) the English-language Wikipedia.

The benefit to storing media files in the Commons is that they can be easily added to pages in any of the various language wikis—from Afrikaans to Žemaitška!

And once a file is stored in the Wikimedia Commons, bringing it in to illustrate an article is easy. You simply need to add a reference to the file in the Wikipedia page that you’re editing.

**STEP 1 Create an Account**

First, visit Wikipedia’s home page to create an account—on the upper right hand corner, click “Log in / create account”:

**What’s the difference between Wikipedia and the Wikimedia Commons?**

When you add a video to Wikipedia, you’re actually taking two steps: 1) uploading the file; and 2) adding a reference to the file in the correct page.

Generally, the video asset you upload will be stored in the Wikimedia Commons—the media archive for all Wikimedia Foundation’s projects, including (most famously) the English-language Wikipedia.

The benefit to storing media files in the Commons is that they can be easily added to pages in any of the various language wikis—from Afrikaans to Žemaitška!

And once a file is stored in the Wikimedia Commons, bringing it in to illustrate an article is easy. You simply need to add a reference to the file in the Wikipedia page that you’re editing.
The log-in screen will look like this. Click “create one.”

When your account has been created, log in (here, we have logged in under the user name “VideoLivre”). A successful log-in will look like this:

**STEP 2 Enable Video Uploading**

Next, you will need to adjust your editing preferences on Wikipedia to enable video uploading. (Note: this is a transitional step. In the future, the default Wikipedia settings will include video uploading in the edit interface.)
Click on “MY PREFERENCES” on the upper-right corner:

Then, click on “Gadgets,” the last option in the tab bar. Scroll down to the “User interface gadgets” area, where you can check the box titled “Add mwEmbed support”:

From now on, when you go to edit a Wikipedia article, your interface will include an extra button: the “Add Media Wizard” button. You are ready to add video to almost any page on Wikipedia.
STEP 3 Select An Article to Edit

Wikipedia is the encyclopedia that anyone can edit. In order to add video to a given article, first locate the article you want to edit.

Here, we’ve chosen an entry about a famous cemetery in New York City. To edit the page, click on “Edit” in the upper-right corner:

You will be greeted with the source of the page. The source for all Wikipedia pages is written in a special “Wiki” markup. Wiki markup is powerful but simple—it’s easy to understand. Wiki markup is what enables millions of contributors to improve the raw materials of Wikipedia pages:

To change or improve an article, click the “Edit” tab in the upper right of the entry area:

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Thankfully, you don’t need to learn Wiki markup. The buttons across the top of your interface will automatically create markup for you. To upload a file and automatically insert a reference to the video, just click the Add Media Wizard button:

You will be greeted by the Add Media Wizard. From here, you can choose to integrate a video into the page from the existing assets in the Wikimedia Commons. Or, you can add a new asset.

Click the “upload file” button:
We have already prepared some video taken at the Green-Wood Cemetery in New York City in an open format. This is what we’ll upload to the Wikimedia Commons.

**STEP 4 Upload Your Video**

In most cases, you should select “Upload my own work to Wikimedia Commons.” This way, the asset you contribute can be used on all Wikimedia projects—not just the English Wikipedia. Click the “browse” button to locate the file on your computer. Add a summary description and a filename, and check the box indicating that you’ve licensed the work CC-BY-SA 3.0 license or better.
All of this metadata can be edited later.

Note: As of September 16, 2010, Wikimedia Commons only accepts assets in the open-source, royalty free Theora and (soon) WebM formats. There are many ways to convert your assets—two workflow-agnostic tools include the Firefogg Firefox plugin and the Miro Video Converter. In the future, Wikimedia may enable automatic conversions.

**STEP 5 Publish Your Video!**

Once you’ve finished the upload step, the hard part is behind you. The file now resides in the Wikimedia Commons.

The last step is to add a reference to that file in the correct Wikipedia page. Thankfully, the Add Media Wizard will automatically insert the correct Wiki markup into the page.

We’re editing the Green-Wood Cemetary page, and have uploaded a file called “greenwood.ogg.” The automatically generated markup looks like this:

```wikipedia
[[File:greenwood.ogg|250px|Video of Green-Wood Cemetary]]
```

The File: name tells Wikipedia where to find the file you just uploaded. The “250px” number tells Wikipedia how wide to draw the video box. And the last piece of information tells Wikipedia what the caption should be.

You can play with and move this markup text to wherever you like on the page—feel free to experiment with video placement using the “Preview” function before you publish:

When you’re ready to go live, click the “Save” button.

Congratulations! Your video is added to the encyclopedia!

Now the community of volunteer Wikipedia editors will be able to edit your video, tag it, comment on it, improve it, and use it. You have just added material to the world’s largest free knowledge resource—benefitting educators, journalists, and lifelong learners across the globe.

Welcome to the community! And remember: for as long as it meets the requirements we have discussed, your video will be free to distribute and redistribute online or via any medium to anyone for any purpose!
IV. Conclusion: Making Media Truly Public

Knowledge is a form of capital that is always unevenly distributed, and people who have more knowledge, or greater access to knowledge, enjoy advantages over people who have less. This means that knowledge stands in an intimate relation to power.

THE MARKETPLACE OF IDEAS

A. A NEW CULTURAL IMPERATIVE

Encouraging students and lifelong learners to become fluent in working with video and sound resources is emerging as a new cultural imperative for those who toil in the knowledge industries. Scholars, who apply their skills in university, library, museum, and archive production centers now articulate the importance of teaching and learning in video—the dominant medium of the 21st century—as opposed to in text alone:


Contributing to such progress may well be part of the missions of many of the institutions we discuss.

To be sure, media scholars and philosophers from Walter Benjamin to Walter Ong and Marshall McLuhan foresaw some of this—a world where film and sound proficiency would deepen global knowledge and self-awareness.\(^{35}\) This interpretation looked forward and back—back to the history of early screen culture when the first cinema consumers (encouraged by producers) multitasked endlessly, interacting with the screen, lecturers, musicians, and audience members throughout the playing time of a picture.\(^{36}\)

As your experiments or pilots with Wikipedia take root, consider evaluating what is in your collection, and what hurdles—financial, technical, legal—present themselves as barriers between that content and an online public. If indeed your institution is supported by public funds, consider this imperative and the Wikipedia potential with even more attention, as open video and the movement it represents are closer to the original spirit of public media than indeed some of the public media players active today. As institutions collect and publish their strategic reviews for the years ahead,\(^{37}\) consider where Wikipedia and open video stand in relation to the next such publication.

### B. THE BIGGER PICTURE

What is the potential of a vast commons of openly-licensed educational and cultural material? For institutions, it arguably opens new ways of engaging with individuals; new methods of distribution; and new models of preservation. It also represents possibilities for a new model of learning—one based on audiovisual literacy and fluency. Many of the great messages of the 20th and 21st centuries have been expressed in moving images, and so it is important that classroom learning adapts to this reality.

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\(^{36}\) “[D. W.] Griffith’s incessant adding and subtracting of footage implies that he saw these films as essentially open texts, capable of showing one face to Boston and another to New York.... By the late silent period, exhibitors could choose alternate endings for a number of major films. Some audiences, viewing Garbo as Anna Karenina in Clarence Brown’s LOVE (1927), saw Anna throw herself under a train. Other theaters showed Anna happily reunited with Count Vronsky. King Vidor shot seven endings for THE CROWD and apparently issued it with two....” Richard Koszarski, *An Evening’s Entertainment: The Age of the Silent Feature Picture, 1915–1928* (Berkeley: University of California Press, 1990), p. 137. See also: Eileen Bowser, *The Transformation of American Cinema 1907–1915* (Berkeley: University of California Press, 1990). It thus may be that sitting alone and quiet in front of images that are not reusable has been the aberrant period in the development of screen culture.

Cicero has been quoted as saying that “freedom is participation in power.” In that light, it is good to note that the technologies of written literacy are fairly evenly distributed and available to individuals to both read and write. Too much of audiovisual discourse, however, remains read-only—the platforms, the software, the hardware, the modes of learning—and the laws around the moving image are more restrictive than they are with text. Imagine if quoting Cicero, as we have here, had required the processing and permissions rigamarole that clipping and quoting a Martin Luther King Jr. video still does today!

Open video on Wikipedia is not simply a call for free media fragments to be stored online. It augurs a vision of teaching, learning, and creative and political discourse—one that reflects the full cycle of human communication as it is transmitted today. With its millions of users, its base of community trust, and its commitment to freedom, Wikipedia is the largest and most popular repository of freely licensed communications content on the Internet. It is not YouTube, owned by a private (if publicly held) company; Europeana or Communia or the BBC Archive, underwritten by governments; or the Internet Archive, run by a single philanthropist—amazing as all these sites are. It is committed to education, free expression, and social improvement, which is why the rules governing experimentation on its platform, if sometimes arcane, are so important to follow.

When a vast commons of openly-licensed educational and cultural material is available, the life cycle of a particular media clip becomes extraordinarily interesting. The clip is made available; its gets used and reused in ways both predicted and unexpected; and in the use and reuse builds value, for itself and for the media and the users which it influences and whom it touches. When made available freely, and with its derivative works also made available freely, and so on down the line, it lives the life cycle of a freely communicated great idea, and we all know how powerful ideas can be....

The issues at stake, of course, thus involve the larger context of building a free and informed society—and this at a time when so many of the information sources available to us are in fact no longer objective or free to use. Without referring to online video, philosopher Jurgen Habermas, for one example, speaks about the new ways in which we are we able now—in ways that we never had
been able—to directly affect, for the better, the power structure of the public sphere and deliberative politics worldwide through the production and redistribution of media. Wikipedia is in many ways a sandbox—more hopefully, perhaps, a proxy—for the future of free (free as in freedom) communication.

If one keeps this objective of building a better society and a better world at the center of one’s universe, as many of the writers, thinkers, and activists cited in this paper do today, one’s work with media, technology, and the public grows ever more significant. What we are moving toward, and what we will continue to require, is no less than a fresh organization of the screen, for the day when my screen is your university, your library, your museum, when your screen is my production sandbox, and vice versa.

As Wikipedians often indicate, that day is coming, and we shall have it.
APPENDIX

Wikipedia maintains a set of resources that are relevant to this work and regularly being refreshed:

http://www.wittylama.com/2010/03/wikimediamw2010/

ACKNOWLEDGMENTS

The author wishes to thank Ben Moskowitz, without whom this white paper could not have been written or been as thoughtful or as comprehensive, and iCommons, the Ford Foundation, and the Hewlett Foundation, without whose support it could not have been written. The author also thanks Ahrash Bissell, Jack Brighton, Jonah Bossewitch, Steve Carson, Alex Cherian, Tim Cothren, Maarten Dammers, Ken Devine, Eric Faden, Paul Gerhardt, David Goodman, Kevin Henson, David Hirmes, Paul Keller, SJ Klein, Diana Kleiner, Richard Knipel, Erik Moeller, Johan Oomen, Stephen Parr, Mark Surman, Lucas Swineford, Jeff Ubois, Vic Vuchic, Ben Watts, and Liam Wyatt for insights and support. Then there is the late Roy Rosenzweig, who first asked whether history can be open-source. This essay is for him.
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