

Development, Deployment and Maintenance of the Plumi Video CMS



In July 2007 EngageMedia released the first public version of Plumi, a free software online video-sharing platform based on the popular Plone content management system. Plumi enables users to create a sophisticated video-sharing site out-of-the-box and customise it to suit their needs.

Plumi has completed 2 key stages of development and has begun to form a solid reputation in the Plone and broader open source video communities. Much work however still needs to be done to ensure the platform continues to develop and is taken up by a wide range of users. This concept note briefly outlines the need and possibilities for the Plumi platform and sketches a series of proposals for its future. These proposals can be more fully detailed upon request.

An Out-of-the-Box Video Sharing System

Plumi is designed to offer organisations a ready-made video sharing platform that can be developed collaboratively into the future and thus remain viable. Whilst it is possible to create a video sharing based on Plone from scratch it is far more labour intensive. Plumi deliberately aims to converge a community of collaboration around it, to ensure developers are sharing code and collectively improving the software, saving each other time and money. Plumi leverages the power of open source development practices to build a sophisticated web-platform that would otherwise cost hundreds of thousands, or even millions of dollars, to produce in the proprietary world.

Plumi leverages the power of Plone, an enterprise standard content management system (CMS) with hundreds of active developers and tens of thousands of sites implemented world-wide. Plone is renowned for having some of the best security and multi-language support of any CMS.

Features, Maintenance and Development

Plumi contains a broad set of video-sharing and community functionalities such as automatic flash transcoding and embedded playback, video podcasting, content licensing, member profiles, tagging, live search, embedded playback of Quicktime, Flash video, Real and Windows Media, and much more. There is however a range of additional functionalities users and organisations demand that we feel are necessary to ensure that Plumi is taken up in the widest possible manner. Added to this are more general upgrading and maintenance requirements to ensure Plumi leverages the full potential of Plone and its broader development.

There are currently close to a dozen Plumi based video sharing sites. These include sites in Japan, Cameroon, Italy, Australia, Austria and the USA. Most significantly the World Social Forum has employed Plumi to run its <http://wsftv.net/> site and the Linux distribution company Redhat are using Plumi internally to share videos of meetings, events and news. EngageMedia run the <http://engagemedia.org> site, which is of course based on Plumi.

We believe there is a significant number of organisations and institutions, whether in the education, non-profit, government or commercial sectors, who would be interested in implementing Plumi and building its community and thus adding to their own success. Ensuring this happens does take some investment, however compared to the proprietary alternatives there are large and significant savings. Added to this is the control organisations have over the platform and the ongoing return they will get from the open source community, from both Plumi and Plone.

It is beyond the scope of this document to list all possible feature additions however the table below provides a summary of what we believe are the most important. Some of the features relate to Plone and Zope – the content management system and database that underpin Plumi. Ensuring Plumi keeps up with the development of Plone and Zope is a must to increase uptake and easily add a range of fixes and features.

The second most salient aspect is that of Plone4Artists, a initiative similar to Plumi, though based more on the creation of individual plone4artists branded components. Plumi instead pulls together larger range of Plone modules. Plone4Artists and Plumi can both benefit extensively for deeper integration, creating large scale benefits for users from these two established communities and further beyond. Most specifically Plumi needs to move to using plone4artists video in order to join forces around a single video module.

Feature	Description
UPGRADES	
Upgrading to Plone 3.0	Plone 3.0 was released in late August 2007 and includes major improvements to user interface, easier work flow customisation, editing in place, improved visual design and behind-the-scenes improvements in efficiency and stability. Moving to Plone 3 is a must for future uptake.
Upgrading to Plone4Artists Video	Plone4Artists Video is the next generation Plone video product built using Zope 3 technologies. Plumi is currently built on ATVideo, a more mature and feature rich product, however ATVideo is based on an older architecture. To increase adoption converging with the development of Plone4Artists video is a must.
FIXES AND DOCUMENTATION	
Video upload progress indicator	Adding a video upload progress indicator to ensure users know the progress of their video upload.
Design work	Fixing design bugs, improving templates and adding minor design enhancements. Whilst relatively small this work increases the togetherness of the whole project.
Documentation	Produce a Plumi manual in collaboration with FLOSS Manuals, a key emerging space for documentation about how to use free software. This is highly advantageous to increase uptake. http://flossmanuals.net
Minor bug fixes	There are a number of small bugs that need to be fixed in order to ensure the ongoing stability of the system.
NEW FEATURES	
Social Networking	Adding buddy lists, messaging, social networking, calendaring, enhanced profile pages, rating, etc.
BitTorrent	Automatically enable videos to be downloaded via Bittorrent when they are uploaded into a Plumi site.
Video embedding	Add the ability to embed videos from other sites (eg, YouTube, Blip.tv) into a Plumi site.
Transcoding and video preview playback	Plumi currently uses Indytube to transcode videos to flash and ogg theora. Desired improvements here building a new application, ZopeTube, a complete package containing the necessary dependencies for handing media serving, transcoding and also bittorrent integration.
Support for Open Source Video Codecs	Development of a transcoder/uploader application, possibly as a firefox add-on, to transcode locally to Ogg and work with a range of video CMSs. Would also provide an improved embedded playback system inside the browser. For more see the research paper produced by EngageMedia. http://tinyurl.com/yofb2g
Large file uploading and improved large file handling	Enabling the uploading of large files (200mb-1GB) into Plumi and ensure they can be handled adequately by Plone/Zope.
Mobiles	The ability to upload and download clips via mobile phones, including the creation of a simple mobile vodcasting application.

Conclusion

Whilst Plumi is now a stable platform much remains to be done to capitalise on the work achieved to date and to ensure it's uptake is strong among new constituencies. To build a critical mass requires leadership and ongoing development, feature additions, bug fixing and attention to users needs and queries.

EngageMedia is well positioned to manage this development project. We have successfully released two iterations of Plumi, are actively running an online video community, have conducted substantial research into free and open source video codecs and have initiated collaborative online video projects such as the Transmission network, including organising meetings in Rome and Sukabumi, Indonesia.

<<http://transmission.cc>>

We have a comprehensive knowledge of the online video space and can effectively execute events and development, conduct research and built strategic networks given the right support.