

Overview of NewsCloud Newsroom Module Architecture

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I. Background

In addition to the intrapersonal interactions between members, the value of online media communities grow with the quality and breadth of content that is added, assessed and categorized¹, e.g. Wikipedia.

Open source platforms such as Drupal and Plone provide a set of core features such as user registration, content management, blogging and comment capability. Other add-ons provide some social media features such as voting and tagging. I expect one outcome of the Knight Drupal Initiative in particular will be to create an integrated social media add-on module that integrates and extends these add-ons to provide a more complete social media platform.

While there are more than 3,700 Plone and Drupal site installations worldwide, each is currently an island. Each community starts largely from scratch. The content each community generates is generally kept inside that community. There is not usually any leveraged value built across a network of organizations with sites using different platforms (not just Plone and Drupal but many PHP or CMS-based sites)². The requirement for readers to register at each new community site can also be a barrier to participation.

II. What is the Newsroom Module Architecture?

The Newsroom Module enables integration of social media features for either new standalone or existing PHP, Drupal or Plone-based Websites and then it connects each community, offering the ability to share content and metadata.

The term social media refers to a community-driven media Website (often referred to as Web 2.0) for news which includes (as a baseline) posting links to stories, writing original content, posting comments, voting and tagging user generated content. Additionally, extended features will be offered such as comment scoring, user ranking, storylines, topic clouds, search, RSS feed aggregation, et al.

Some example scenarios that the Newsroom Module would support include:

- Adding social media features to an existing Plone Website.

¹ One part of NewsCloud's philosophy is to create technologies that make it easy for members to add related resources, links, context and historical perspective to the news.

² However, there is a recent KDI proposal for a Drupal project to build a hub that would interconnect sites on the Drupal platform.

- Launching a demographic publication in Drupal for college age students
- Launching a topic-based publication as an application on Facebook e.g. Obama '08 or Global Warming News
- Launching a geographical publication as a standalone PHP-based Website in a small international community e.g. Reykjavik or Seattle
- A collaborative newsroom sponsored by five different environmental organizations using the Newsroom Module on their various platforms (Drupal, Plone, PHP, Facebook), but presenting feeds, news and commentary within their existing Websites.
- Dual publishing to extend reach: An organization running a social media publication with the Newsroom Module on Drupal mirrors its content and commentary to Facebook without any significant extra effort.
- Providing a simple, well-documented open source PHP-based architecture for future news challenge participants to leverage and build on (e.g. add video comments or geotagging)– and to support future academic research
- Statistical analysis of aggregated social media activity a collection of different sites and the NewsCloud community using the Newsroom module for academic research

In addition to these basic features, sites using the Newsroom Module would have the following features:

- Ability to share and mirror stories, comments and benefit from metadata shared through NewsCloud and sites using the Newsroom module based on a simple set of configurable rules.
- Synchronized user registration across multiple Websites optionally allowing participation without re-registration on each site.
- Aggregated metadata about stories such as storylines, tags, votes, links and multimedia could be shared across sites using the Newsroom module – providing shared context and intelligence (rather than each community starting from scratch).
- Topic pages and discussion threads on sites could integrate stories and comments posted by users from different online communities.
- Access to NewsCloud's engine of RSS feeds from around the Web based on any topic. These can be used to seed content to the newsrooms.

In technical terms, the Newsroom Module is intermediary code that connects sites on platforms such as Facebook, Drupal and Plone to the NewsCloud platform and its community via NewsCloud's Web Services API. It allows third party sites to quickly and easily benefit from social media services and content offered by NewsCloud.

An important element of the module consists of a local cache that increases local performance on each platform by scheduling synchronization of most data in the background.

The Newsroom Module also consists of add-ons for each platform:

- **PHP Framework.** This will provide a turnkey installable social media newsroom into any Web server or existing PHP-based Website.
- **Drupal Module.** Built on our existing NewsCloud Drupal Newsroom Module, this provides a plug-in for Drupal platforms to integrate a social media publication into their Website.
- **Plone Module.** This provides a social media plug-in solution for the Plone platform.

Support for other platforms and technologies such as Joomla, Django, AIR, et al. is also possible.

The Newsroom consists of at least one standard design template i.e. skin (perhaps more), which supports the look and feel for each social media publication. In some cases, the look and feel of the third party platform is inherited.

III. Funding areas

The following are areas that could be funded for this project:

- Build the core PHP Newsroom module and expanding the NewsCloud Web Services API capabilities. This work would leverage existing work done to date.
- Build add-on modules for Drupal (extending the existing module), Facebook (extending the existing application framework) and Plone.
- Build one or more design templates for customizing the look and feel of each newsroom.
- Fund one or more people to manage outreach to the open source community for expanding development of the newsroom module – perhaps as a part of the News Challenge process.
- Build a statistical analysis package for studying social media activities on sites using the Newsroom Module and within the NewsCloud community.
- Fund outreach and development to manage one or more specific pilot media publications such as a youth oriented media project or a media publication for a small community.
- Internationalize the Newsroom Module and translate documentation

IV. Why is NewsCloud the appropriate solution provider?

NewsCloud (<http://www.newscloud.com>) is an open source social media community offering readers the opportunity to share and discuss important stories from around the Web. In this age of unprecedented media consolidation, NewsCloud stands as an independently operated platform for diverse community participation and growth.

NewsCloud released its Web Services API back in October 2006. The API provides more than 50 APIs, a number of example scenarios and a simple PHP library for integrating NewsCloud features into third party Websites. See <http://www.newscloud.com/learn/apidocs>.

In 2007, NewsCloud created a beta Drupal add-on social media module providing basic newsroom features such as posting, voting, commenting and feed generation based on specific topics. The Drupal module uses our Web Services API. See <http://blog.newscloud.com/2008/02/drupal-newsroom.html>.

In March 2008, NewsCloud released a beta open source Facebook CMS and social media newsroom using the Web Services API and an early interaction of the Newsroom architecture. See <http://blog.newscloud.com/2008/03/open-source-fac.html>. More than 450 people have downloaded this source code from SourceForge since its announcement on our blog.

Each of these technologies show core competency in the areas that will be needed to realize the vision of newsroom module architecture.

NewsCloud was founded by Microsoft and MSNBC.com veteran Jeff Reifman. Originally launched as CommonTimes.org, the site was branded NewsCloud.com in mid-2006.

In October 2006, NewsCloud broke the story to the Web and mainstream media regarding the copyright dispute between YouTube and Viacom ([YouTube Removes Comedy Central Clips Due to DMCA](#)). NewsCloud was a finalist in the 2006 Knight Foundation Citizen Journalism contest.

NewsCloud's long-term goals include raising the quality level of participation and commentary online by supporting the growth of more sophisticated news communities. Examples of these ideas include our experimental member scoring system, comment ratings, topic clouds and storylines (which provide additional context and history to the evolution of particular topics).

NewsCloud's Platform integrates a number of new technologies:

<ul style="list-style-type: none">• Scalable page request class, database class and caching	<ul style="list-style-type: none">• AJAX integration with Prototype and Scriptaculous
<ul style="list-style-type: none">• Word Press Multiuser for reader blogs	<ul style="list-style-type: none">• Facebook Application and Login
<ul style="list-style-type: none">• OpenID Client/Server integration	<ul style="list-style-type: none">• Google AdSense API Integration
<ul style="list-style-type: none">• Google Sitemap Generator	<ul style="list-style-type: none">• REST-based Web Services API with PHP Library and examples
<ul style="list-style-type: none">• RSS Feed Generation, Feed Reading via Magpie and Javascript generation of feeds	<ul style="list-style-type: none">• Drupal Plug-in Module (in development)

<ul style="list-style-type: none"> • Blog this integration with TypePad, LiveJournal, Blogger and Word Press 	<ul style="list-style-type: none"> • TypePad Widgets
<ul style="list-style-type: none"> • Google Analytics integration 	<ul style="list-style-type: none"> • Multi-service Ad Rotation engine
<ul style="list-style-type: none"> • RSS Feed Engine 	<ul style="list-style-type: none"> • Smarty Template integration for partner customization

Related links:

- NewsCloud Wiki for developers and partners (<http://www.newscloud.org>)
- NewsCloud Web Services API (<http://www.newscloud.com/learn/apidocs>)
- NewsCloud Source Forge project site (<http://sourceforge.net/projects/newscloud/>)
- NewsCloud application on Facebook (<http://facebook.newscloud.com>)
- NewsCloud Drupal Module (http://www.newscloud.org/index.php/Drupal_Newsroom_Module)
- NewsCloud Facebook Newsroom/CMS Framework (<http://blog.newscloud.com/2008/03/open-source-fac.html>)

V. About Jeff Reifman

Jeff has developed the NewsCloud platform and Web site primarily by himself and occasionally getting the help of contractors on a limited budget.

He has also developed Facebook applications for NewsCloud (the NewsCloud application and the Newsroom/CMS open source framework), BC Hydro (Green Gifts <http://apps.facebook.com/greengifts>), Genome Alberta (Genomics <http://facebook.genomealberta.ca>) and several of his own: The Lending Library (<http://www.ourlendinglibrary.com>), The Daily Show (<http://facebook.dailyshownews.com>) and Comedy Central clip viewer (<http://apps.facebook.com/ccvideos>).

In 1991, Jeff joined Microsoft as a Group Program Manager where he helped launch MSN News and MSNBC.com.

In 1997, Jeff founded Habitat Espresso and the Four Angels Café, operating them as community-centered businesses that donated their profits to regional charities. Jeff's efforts were featured on NBC Nightly News, The Lehrer News Hour, Good Morning America and in Seattle media.

In 1999, Jeff left Microsoft, raising \$2 million in venture capital to found GiftSpot.com, an electronic gift certificate company, later acquired by GiftCertificates.com.

In 2001, Jeff founded ActionStudio.org and began building Web-based services for nonprofits. ActionStudio received funding from The Omidyar Foundation and was later acquired by Groundspring.

In 2004, Jeff wrote three features for the Seattle Weekly about Microsoft's technology, its corporate practices and about his own socially responsible investing.

In 2005, Jeff launched CommonBits and CommonTimes, which later evolved in to the progressive news, network NewsCloud.

See Jeff's personal Web site for links to free lance clips and media coverage at <http://www.reifman.org>.

Questions or comments about this document may be sent to jeff@newscloud.com.