

Enhancing Traditional Media Services Utilising Lessons Learnt from Successful Social Media Applications – Case Studies and Framework

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Abstract

The paper presents a framework for describing electronic media services. The framework was created by utilising earlier models and case studies of successful social media applications. Wikipedia, YouTube and MySpace were analysed because they are among the most popular sites in the world and they highlight different aspects of social media applications. The proposed model consists of two main parts: Concept and system, and Content and user. Both of them were further divided into four subgroups. With the help of a radar view, various applications can be described and compared and their further development opportunities identified. A prototype application, StorySlotMachine, is used as a case example, where the framework is used.

Keywords: social media; YouTube; Wikipedia; MySpace

1 Introduction

The initial vision by Tim Bernes-Lee [1] was that internet would be a platform for interactive information sharing. During the recent years we have seen development that has made this vision true. The tools needed for digital content production have become easy to use and cheap enough for a large number of people. More and more people have broadband Internet access, which makes Internet the natural way to share digital media. Terms like Web 2.0, social media and user-generated content are being used to describe the services that have been created on top of this development during the last years.

This development has raised many questions among media companies. The traditional media approach has been product centred. The aim is to offer a product to as large audiences as possible. The role of a media company has been to organise and filter content and to package it into a marketable whole. Marketing is often done at two directions: the product is sold to readers or viewers and this audience is then sold to advertisers.

Media services can be roughly categorised into two main groups: information or entertainment. In practice, most traditional publications try to address both of these with the main emphasis on one or the other. We can also claim that many publications promote some sense of community among their readers or viewers by giving people common topics to talk about. Community building is also obvious in publications with relation to some religious, political or some other idealistic movement. But also in these cases, the role of individual end users has mostly been invisible and they have been seen as a target group.

Social media applications give people new ways to find information and entertainment and also to build communities, which has meant that the role of traditional media has become weaker. Traditional media companies do not host the most popular or most quickly growing sites on the net.

Several terms are being used in connection to these new services. The word participatory media has been used to emphasise the nature of user participation in media creation. Other frequently used terms are social media, social software and social networking. These terms bring out the social aspect – users not only act as content creators but social interaction between users has become possible and visible in the applications.

From the content or media object point of view, the most important change is the lengthened life cycle of media objects. In the traditional publishing models, the content selection at media object level was made by professionals who compiled the aggregations that then were offered to consumers as packages. As content has become digital and it has become easy to refer to and discuss single media objects, the life of a media object may be lengthened considerably (Fig 1). Media is also more and more consumed as smaller fragments - video clips instead of whole shows, single songs instead of whole albums.

This development raises the question of what traditional media companies could learn from the successful social media applications to revitalise their own business. The aim was to create a framework that would help in characterising social media applications and would be usable as a tool in finding new opportunities to developing new services to traditional media companies.

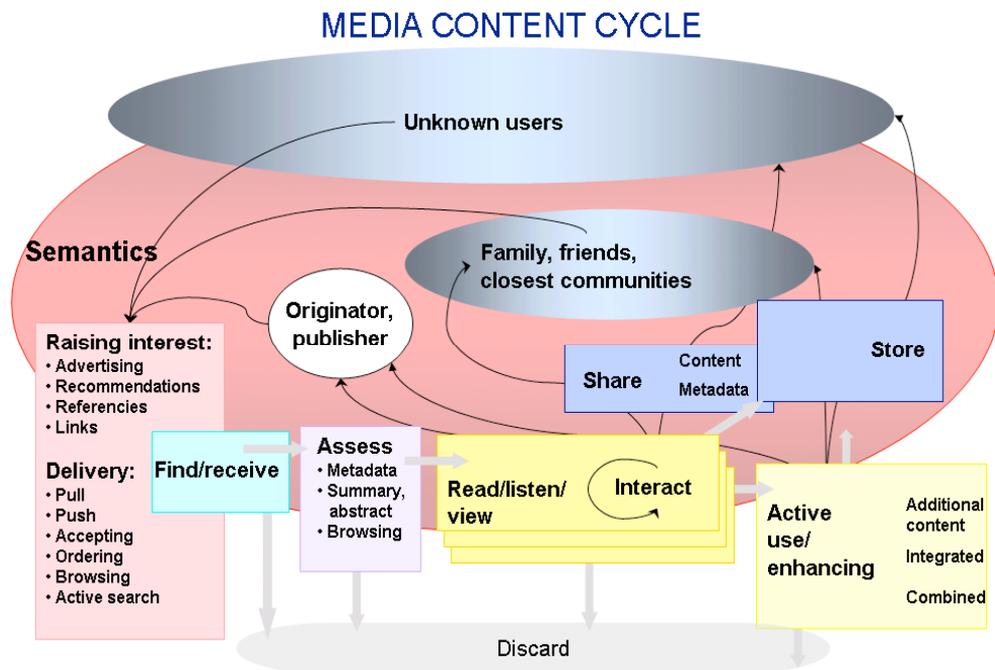


Figure 1: The life content cycle is prolonged for the electronic media

2 Methodology

The chosen research method was to make case studies of successful social media applications. In order to make the case studies in a systematic way, the main characterising features of social media applications were identified. Here, also the traditional media processes were taken into consideration in order to find and pinpoint the areas where the differences are greatest.

Case studies were made by going through three hugely popular applications, Wikipedia, YouTube and MySpace, and analysing their features. These three are among the most popular sites in the world, and they highlight different aspects of social media applications. Additional information and research findings were searched from the literature. No user studies were made, so the analysis is based on what can be seen at the website and what research results and other information is available.

3 Results

3.1 Characterisation of Social Media Applications

We can look for characteristics for describing social media applications from two directions: from general IT application adoption point of view and in comparison to traditional media. Technology acceptance model (TAM) has been applied successfully as a theoretical framework to explain the adoption of IT applications [2]. It was originally developed relating to office applications, but it has been found to apply to other IT applications as well.

The model is simple. It explains the acceptance with the help of two factors – ease of use and usefulness. People must perceive benefits from using an IT application and the application must be easy to use. These are important criteria for social media applications, since the user must be able to learn to use the service by him or her self, and the value of these applications increases as the number of users increases. The first seconds a first time visitor spends with the application are the most important ones, because if the user is confused and does not

know right away how to use the service and what benefit there are available, he or she may never return. The traditional media process consists at top level of three main steps:

1. Concept and longer term product development: what kind of content products will be offered and to which target groups;
2. Marketing to customers and advertisers;
3. Production – creating and selecting the content for individual issues. Here, depending on the type of media, content is either made based on commissions or offered for publishing;
4. Feedback from customers is received two ways: direct feedback on single articles but mostly in the form of increasing or decreasing sales and subscriptions.

Since social media applications are IT applications, we need to pay attention to the ease of use aspect, which has not been relevant in traditional media products. The usefulness or value proposition is important in any service or product, since other features are irrelevant if there is not perceived value in using an application. In social media, the aspects are particularly worth addressing users and content. Based on these features, the following characteristics were chosen to be used in the analysis:

1. What is the main service concept, and which additional needs people may have in connection to media products (Concept and value proposition);
2. What kind of content is being created and shared and how users participate in content creation and management, what is required from users to be able to participate in content creation and management (Content and user participation);
3. How visible the users are in the service, does the service support identity and community creation (User identity and networking);
4. When and how the service is being used and marketed (Use and marketing).

3.2 Wikipedia

Wikipedia¹ has become an important collection of knowledge and it can be regarded as the open content counterpart to the open source development.

Concept, value proposition

The Wikipedia product concept – a collaboratively created encyclopaedia, was defined by its founders. The key promise was to make a free and open knowledge source and this way participating in Wikipedia entailed participating in a big common goods endeavour. The five pillars [3] depicting the key Wikipedia principles are as follows:

- Wikipedia is an encyclopaedia
- Wikipedia has a neutral point of view
- Wikipedia is free content
- Wikipedia has a code of conduct
- Wikipedia does not have firm rules

Larry Sanger, one of the Wikipedia founders, sees the following causes behind the Wikipedia success [4]:

1. Open content licence
2. Focus on encyclopaedia
3. Openness – anyone can contribute
4. Ease of editing
5. Collaborate radically, anybody can edit anybody's article
6. Offer unedited, unapproved content for further development
7. Neutrality
8. Start with a core of good people
9. Enjoy the Google effect

¹ <http://en.wikipedia.org>

Content and user participation in content creation

There are two main parts in the Wikipedia:

- the platform with many features supporting collaborative and unmanaged content creation;
- the content creation and management process that lets any user act as a content creator or editor.

The Wikipedia platform supports collaborative editing by storing all versions of the content together with the user name or IP address. All versions of the article are available and comparisons may be made between any of them. If one of the earlier versions is considered better than the current one, it is possible to revert to it. This can also be used to fight spam.

Anyone is able to create a new entry on any subject they see worth writing about. Existing articles can be used as examples. Most active users act as editors and, for example, mark articles that need further refinement. New articles are being created by making an internal Wikipedia reference to a topic that does not yet exist. This means that the person who creates or names a page, need not know or write about it but only to be of the opinion that this is a topic that should be included in the Wikipedia. There is no process for selecting which articles to write. However, users may create what is called a portal within Wikipedia to promote and support creating articles relating to a topic. Such portals have been created for multiple topics, for example for various sports or countries.

In order to promote high-quality articles, articles may be requested a peer-review, and an article may get evaluated as a good article or a featured article. The focal point of the users' work is creating a coherent and balanced article about a topic. Self-organising is the supported way to get things done. Active users may become selected into managerial tasks within the Wikipedia community.

User networking

Mediawiki², the platform used for creating Wikipedia, supports creating pages or articles. Information about single users may be presented in the same way: A user may write an article about him- or herself and give whatever information he or she wants to share with others - or remain unknown and participate anonymously. There is no direct support to find information about user connections, but users must explicitly create any such information.

Use and marketing

Users may access articles either by making a search, clicking the Random page link or following the links in the articles. Users are encouraged to embed internal Wikipedia links within the articles, and group the external links at the end of the article, if such links exist.

There is not direct information available about how much the pages have been viewed. There is a Statistics page that gives some information about the total number of pages, as well as lists the most popular pages. There is no direct support to invite other people to visit Wikipedia.

Currently search engines are an important driver to Wikipedia articles. Wikipedia articles are ranked highly, and some search engines support targeting searches directly to Wikipedia. Also, the free access to Wikipedia content has given it visibility, as various open initiatives, such as Semapedia³, have utilised the Wikipedia content. Free content brings with it the opportunity to get free visibility.

3.3 YouTube

Concept, value proposition

YouTube⁴ is technically a platform for sharing online videos. The service was created to support this particular media format at the point when people had started creating more videos, but there was no easy way to share them.

We can say that the value proposition has two levels: the immediate and practical value and potential value. The immediate value is being able to share content over the internet with family and friends, and the potential value is in being able to reach new people and contacts, and even international fame.

² <http://www.mediawiki.org/wiki/MediaWiki>

³ <http://www.semapedia.org/>

⁴ <http://www.youtube.com>

Content and user participation

The service relies completely on users to upload video clips. The platform is open for any person who wants to upload a video. At uploading, users give some basic metadata about their video (category, description, tags).

User participation is not restricted to bringing in new content, but users may participate in assessing and evaluating content. There are several opportunities to that such as rating, discussing, and adding to favourites. Also the mere act of viewing a video is utilised as a metadata, because number of times each video is viewed is shown and the most viewed videos can easily be found. Users' may collect videos into playlists and these lists may be made public, which supports finding related items. A user may also create a channel that others may subscribe. A collaborative way of aggregation videos is to set up a group with a special theme.

User networking

Each user gets a home page that gathers information about that user and his or her activities in the community. Users may easily communicate with each other and also create a permanent link between themselves by connecting as a friend. User favourites, subscriptions and subscribers are visible there. User networks support both finding other users with similar interests and also finding content.

Use and marketing

The YouTube website shows about each video how many times it has been viewed. Also information is given on which websites have links to each video, as well as honours, if the video has received such. Once a video has been viewed the system suggests additional videos for viewing in order to make people stay longer at the website. User networks and the ability to embed any YouTube video in other websites have played a key role in making YouTube known and popular. YouTube fits well to the online communication where users post links to each other.

Jawed Karim, one of the YouTube founders considers the ease of linking to the videos as well as the opportunity to embed a YouTube video by copying a piece of HTML code to ones web page as factors contributing to the rapid growth that the site experienced [5]. Additional key feature was the ease of use: videos could be viewed immediately without downloading a viewer or codec and discussions could be made around videos, so that viewing a video was not any longer a single, detached event, but became a social event with possible many steps.

3.4 MySpace***Concept, value proposition***

MySpace⁵ is a social networking site. Its main value proposition is to offer a public web space to present oneself and to connect to other people with similar interests. Also here, the opportunity to become famous, particularly in the music scene, is an important part of the value proposition.

Content and user participation

The content in MySpace is gathered around profile pages. People add media that they find interesting and supportive to their profile and personality. Also various commercial products like cars or films may have a profile page that people may connect to, if they find the product valuable to them. Users may, for example, rate videos, but these ratings are not published as directly and openly as for example in YouTube.

User marketing. The break through however was made when small offline communities between 100 and 1000 members were attracted to the users of the site. This contributed to launching the network effect.

3.5 Lessons from the Social Media Applications***networking***

User networking is the key functionality in the service.

Use and marketing

According to danah boyd [6] there are several reasons why MySpace became so popular, particularly among 14-24 people. This age group has a bigger need for creating a public profile than other age groups. Youth also needs their own public space, and MySpace has offered this in virtual space.

⁵ <http://www.myspace.com>

Also, the communication opportunities offered by MySpace fit the existing communication patterns: the youth communicates via instant messaging for immediate communication needs, and MySpace is the complementing asynchronous communication channel. MySpace has become part of their daily routine, which means that when people have their computer on, one of the sites they have open, is MySpace.

Gabbay in his case study of MySpace [7] claims as one of the decisive factors contributing to the MySpace success the freedom that the platform and its developers offered to the users. Photos and music were according to him the most important content elements. As to the initial marketing of the site, various kinds of marketing actions were utilised including contests and email. Each of these three successful applications has a clear focus or value proposition, which is complemented with additional values.

Wikipedia is the most idealistic application where a common goal to create an important knowledge mass motivates people. Here a single user may remain anonymous, if he or she wishes so. And also, there is least support for making and showing user connections. Wikipedia differs from the other two also in that a common media object, an encyclopaedia article is being created in collaborative fashion. The model is disruptive in the sense that users are encouraged to modify and alter other users' texts. Also, the self-organising way of creating content can be regarded as disruptive. The critical point in Wikipedia is user motivation and maintaining it. There are little opportunities to external rewards for Wikipedia content creators and editors.

YouTube offers both immediate value (video sharing) and potential value as a platform in seeking feedback, popularity and fame. User information and profile are visible and even though the content is shared freely among users, each user may utilise the platform for making him or herself more known. There are several ways for users to connect with each other. Users may also create groups that concentrate on some special interest. The role of users in organising the content is also important: the video related metadata becomes richer as people rate and comment videos and add them to their favourites. Finding videos would be practically impossible without this additional user generated metadata.

MySpace turns the relation between users and media objects into reversed order. Here, the users or user profiles are in the focus of attention and media objects are used to complement the user profiles. MySpace lets users play with their creativity and use the system in many, also in unforeseen ways.

In traditional media, products like an issue of a magazine or book, are being created by utilising well-defined processes with input and output. Web-based social media applications have a very different life cycle: a platform is offered to users and as the service gets used, it starts to take shape and may get new form.

3.6 Framework

Based on the initial characteristics used in describing the social media applications and the findings that were made, the characteristics were further elaborated into a framework. The framework supports getting a quick overview of the features a service and pinpoints to areas where there could be additional opportunities for further development by taking into account the features that have been successfully utilised in social media applications. The features were grouped into two groups: Concept and system, and Content and user. There were further divided into four subgroups each.

Concept and system (Fig 2) is divided into the following subgroups:

1. Main attention in the service
 - Content
 - Users
 - Other
2. Value proposition timeframe
 - Immediate
 - Long term, cumulative
3. Value proposition type
 - Social
 - Emotional
 - Rational, practical

Social and emotional values are indicated as separate, even though they are somewhat overlapping. We wanted, however, to give the opportunity to separate them. For example, a movie typically offers emotional value without strong social aspect.

4. Usability and improvements

- Ease of use
- Evolutionary development

Content and use (Fig 2) is divided into four subgroups:

1. Content enhancements

- Aggregating content (e.g. playlists)
- Modifying content
- Opinion expression (ratings, metadata) and its visibility

Aggregating content refers to the opportunities of combining available content into aggregations or combinations that a user finds meaningful or practical to him- or herself, for example making a playlist of videos or combining bookmarks into a readlist. Modifying content refers to changing the content or features within a media object, for example editing the text or picking a part of a video and combining it with some other video. Opinion expression refers to user generated metadata, which may be utilised to make recommendations, and/or shown explicitly to other users.

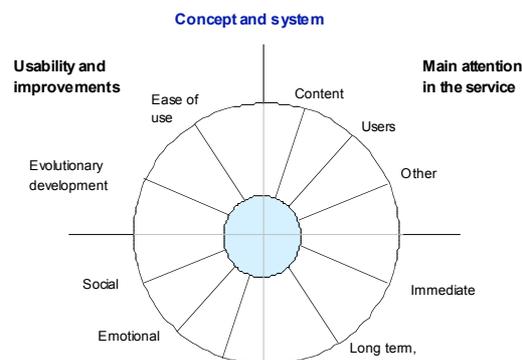


Figure 2: The framework for describing a media service features. The more a certain feature or functionality is supported a position closer to the outer circle should be chosen

2. Content type and sharability

- User-generated
- Commercial, professional
- Exportability (embedding, APIs)

3. Creation opportunities

- Alone
- Small group
- Community

Here, the term ‘Small group’ refers to the opportunity of organising groups with special focus or aim, or with one’s friends and family. The ‘Community’ refers to larger scale collaborative work and sense of community within the service.

4. User visibility and networking

- Identity building
- User networking
- Inviting and attracting new users

By going through the whole framework, it is possible to get an overview as to where the main opportunities are for further development. Also more detailed analysis may be carried out by picking two of the subgroups and

looking at their interrelations as a quadrangle. For example, the value proposition time frame and type could be analysed as a quadrangle, or Content enhancement opportunities and Content type and sharability, or Content enhancement opportunities and Creation opportunities. The framework does not imply some ideal value, even though the general interpretation is that the larger a figure comes out when evaluating the features of a service, the more opportunities there are for user interaction and value creation. It may not, however, be sensible or even possible to combine all the features in one service.

Figure 3 shows two of the analysed services described with the help of the framework. We can see that YouTube has more support on the user and user connectivity side. The clear difference in the approach to content enhancement is that YouTube supports aggregating and playing with video clips where as the main focus of Wikipedia in the modifying and working on the actual content, mainly the articles. Regarding concept and use, we can see that YouTube includes many more of the identified features than Wikipedia.

In Figure 4, an application prototype, called StorySlotMachine, is described with the help of the framework. StorySlotMachine [8] was built in one of our earlier research projects. The project aimed at exploring the opportunities of utilising semantic metadata and user-created content together with commercial media content. The application lets users explore and play with media content. Content may come from various sources: user's own content may be complemented with that from other users and what a commercial media company offers. The users are encouraged to add some information about where their photos were taken, and what is shown in the photos. Based on these clues, additional related content is offered. Users may also create their own collections out of the existing material, either travelling plans, guides or reports.

The prototype deals with travelling related content and focus. Many media companies have extensive archives that are not effectively utilised as end user services. The StorySlotMachine is an example of how their content could be offered in a more interesting ways than as mere searches and search result lists.

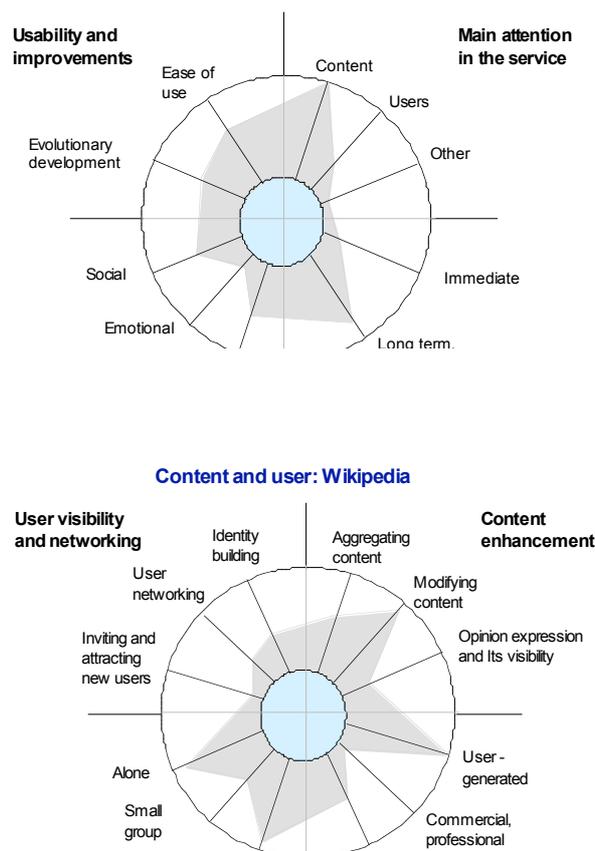


Figure 3a-b: Two social media applications, Wikipedia and YouTube characteristics depicted in the proposed framework. The differences in the emphasis of the applications come clearly out

The prototype development was started three years ago. The idea of combining user-generated content with professionally created commercial content was emphasised as well as the aspect of being able to easily play with content components. The social aspects of such an application were not taken so strongly into the focus in system development. In user tests, users liked the idea to get information as ready made stories and to combine their own content with commercial content, and were interested in features that let them view and utilise aggregations that other users had created. We clearly see the opportunities in further development by adding more visibility as to what other people are doing in the service, and also being able to connect to other users.

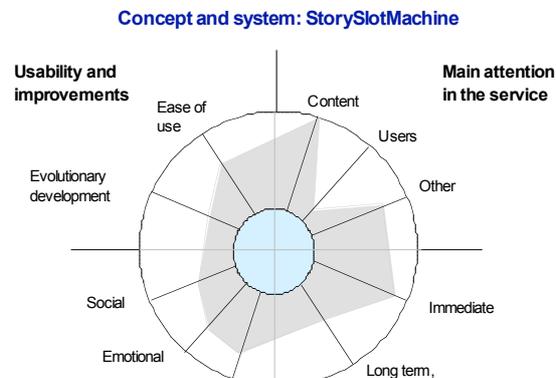


Figure 4: A prototype application, StorySlotMachine described with the framework. We can see that the development opportunities exist particularly in adding support for user visibility and social aspects of content creation and sharing

4 Discussion

The framework gives a quick way of capturing the features of a media service and comparing them with the opportunities and the lessons learned from successful social media applications. The framework does not address the business side. Currently advertising is the key business model, and people rarely pay for the access to content [9].

Traditional media companies may benefit from the web experiments that other companies have made, but there are also many challenges. The most successful applications have originated from new companies, and not from traditional media companies. New entrants have not had any existing business and this had given them the opportunity to adopt very new and even disruptive models. During the first Internet wave in late 1990'ies, the belief was that the key was to attract as many users as possible, and that the business would come along with it. This belief is still valid in many cases. Also, creating new services on the web for new customers is in many cases easier and more sensible than trying to offer web-based services to users who are more accustomed and happy with their traditional media products.

As to the framework, we see that it should be tested further. More services should be described with it in order to validate it more. Also comparisons should be made with not so successful applications – does this framework help in differentiating these from the more successful ones. Also, wider application of the model as a tool in exploring the development opportunities for existing media services should be done.

The focus is utilising the framework should not be in debating where the exact position on each axis is but to discuss, whether these different aspects should be supported in a service, and if so, what would be the best way to do it.

5 Conclusions

Social media applications have brought the users into focus in media applications. The traditional model where users were regarded as a target group remains also valid but the growth opportunities have been in activating and giving tools to users. New opportunities have also been found in taking something else than content as a starting point: in MySpace the users are the centre piece, and in our StorySlotMachine the travelling sights.

The framework gives a good starting point for exploring the development opportunities based on success stories. But, we must pay attention to new opportunities that may emerge but which have not been explored yet. Adding the mobile dimension and utilising context can be mentioned as two areas where to look for new opportunities.

Involving users creates the opportunity to grow the sense of community and ownership of the service. The most critical point is the start – how to get the community to attract and active users. Also, connectivity to other users and content on the net is needed and helps in creating successful applications.

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