

White Paper



Realizing the Potential of User-Generated Content and Social Networking

Challenges on the road to Service Creation

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Abstract

Communication Service Providers (CSPs) around the world are registering a decrease in their mainstream revenue from traditional voice and data streams. The success of Internet sites such as MySpace.com, Facebook.com, YouTube.com and Bebo.com has prompted CSPs to revisit their service creation strategies. New services based on Web 2.0 themes can help CSPs offset their decrease in revenue by driving customer traffic and usage.

With extensive bandwidth, multi-platform offerings and a huge customer base, the CSPs can leverage Web 2.0 services and create new service offerings across multiple delivery platforms such as the Internet, IPTV and Mobile.

This paper identifies the key challenges that CSPs must address to successfully introduce Web 2.0-based services to customers across their multi-platform access offerings.

The Web 2.0 Landscape

Web 2.0 is a set of services that enable collaborative creation and distribution of content on the Internet, augmented by a rich user experience for customers accessing the data.



Figure 1 - Popular Web 2.0 sites

(All logos used for illustrative purposes are trademarks of respective companies)

The Web 2.0 environment encourages user contribution, collective intelligence and community collaboration.

User-Generated Content (UGC) and Social Networking are two of the most significant aspects of Web 2.0 based on their potential for mass adoption and revenue generation.

Web 2.0: CSP's new blueprint for service creation

Realizing the importance of UGC and Social Networking services, companies such as MSN, AOL, Yahoo and Google are creating such services to avoid losing traffic to YouTube, Facebook and MySpace.

CSPs are exploring UGC and Social Networking based themes to generate additional revenue streams and provide compelling content and services to customers. They are ideally positioned to offer a genre of value-added services that existing Web 2.0 companies cannot easily provide. The offering can include a consolidated access platform to multiple channels such as IPTV, Mobile and the Internet. With a rich source of information about users, their geography, their usage, their behavior and their spending patterns, CSPs have an edge over others in providing UGC and Social Networking based services to customers.

Recent Web 2.0 Service Rollouts by CSPs

Recent trends indicate that there is competition among CSPs to adopt new Web 2.0 services. CSPs are expanding their revenue streams by monetizing UGC and Social Networking trends through:

- Direct revenues such as ad insertion and revenue sharing from user subscriptions, and
- Indirect revenues through increased data usage and transaction-based revenues

3 UK reported that its UGC video service, “SeeMeTV” received 12 million¹ downloads in the first year of launch indicating the potential of Web 2.0 services.

- MySpace client on Vodafone mobiles
- YouTube videos on Verizon mobiles
- Bebo videos on Orange mobiles
- 3 UK's "SeeMeTV" mobile service
- O2's "LookAtMe" mobile video service
- YouTube videos on Vodafone mobiles
- 3 UK's "Kink Kommunity"

Challenges in adopting UGC and Social Networking services

The popularity of Social Networking and UGC has encouraged CSPs to integrate Web 2.0-based services into their current offerings to improve customer loyalty, increase traffic and reduce churn rates.

As CSPs enhance their service offerings by leveraging Social Networking and UGC services, they will have to address some key challenges:

CSP's Walled Garden Offerings

Traditionally, CSPs created a 'walled garden' around their portal and mobile offerings. Customers were given access only to the services and content determined by the service provider. CSPs adopted this closed model for control and consistency of the end-user experience and to maintain control over the content being offered to customers.

However, this approach adversely affects the customer experience in terms of their freedom of what content and services they seek to access. Moreover, the openness promoted by UGC and Social Networking services provides customers with more reasons to access third party content and services outside the CSP offerings.

The interest of customers in different Social Networking and UGC services varies over time just as interests change in real life. Given the choice of rich and diverse content, users are likely to gravitate towards third party Social Networking and UGC services. Users may switch in groups from their existing provider if they see their friends using another service which partners with a different CSP. In other words, CSPs partnering with specific Social Networking and UGC service providers run the risk of increased churn.

Network Bandwidth Constraints

With the increasing popularity of Social Networking and UGC websites and mobilization of these services to provide customers with an 'on-the-go' experience, CSPs must address challenges related to bandwidth availability for the customers.

CSPs have addressed issues related to downstream bandwidth in the past. With these new services attracting more users to upload heavy files in the form of photos and videos, CSPs will have to focus on upstream bandwidth.

Sharing of rich media across online communities, on-demand user-generated video and music streaming create a burden on the available bandwidth especially when CSPs are allocating bandwidth for their IPTV and VoIP offerings. According to the Wall Street Journal and the United States Internet Industry Association, "the 100 million videos streamed each day through YouTube consume as much bandwidth as the entire Internet in 2000²".

CSPs partnering with Web 2.0 companies and offering these services on mobile phones will dramatically increase their usage, as the number of customers connected through their mobile phones exceeds users connected through their PCs.

Content-rich Web 2.0 services will impact the bandwidth available for customers through their Internet and Mobile networks. Customers are usually unaware of these bandwidth constraints and may be dissatisfied with their service provider when the QoS decreases or does not match their expectations.

Potential Legal Issues

Integration of Social Networking and User-Generated Content with the CSP's online portals and mobile devices enables users to upload and post content from several new access points. While hosting these new services can increase the revenue for CSPs, their vulnerability to a host of legal issues also increases.

CSPs have to take necessary steps to manage the potential risks and prevent liabilities arising out of legal issues such as:

- Copyright and intellectual property infringement
- Defamatory, racial and sexual rhetoric
- Obscene and pornographic content that may be available to minors

The Viacom lawsuit against YouTube highlights the potential revenue leakage resulting from these legal issues.

CSPs must provide parental controls and safety tools for User-Generated and Social Community content on portals and mobile phones to ensure the safety of children, while at the same time allow them to enjoy various entertainment and communication services. Content moderation becomes a critical responsibility of the CSPs to ensure that inappropriate contents are not made available to the children through their portals and mobile devices.

Pricing Pressures

The User-Generated Content companies and Social Networking companies have been successful in creating a huge customer base and monetizing their services through ad-based revenue streams. Integrating these services with their offerings will be more profitable as there will be fewer parties to share the ad revenue as opposed to commercial content where the margins for CSPs are thin.

A majority of customers are inclined towards using new Web 2.0 services today. Given the mobility aspect, these services can reach a wider audience and drive data usage multi-fold. The pricing strategies of CSPs will play a major role in increasing the usage of these services especially on mobile phones. Traditional usage-based pricing will be a deterrent to Social Networking and UGC services on mobile phones, as users will not be willing to pay each time they browse a profile or watch a video.

Offering these services as subscription-based services may also be a deterrent to increase the usage of these services as most of them are available for free on the Internet.

CSPs will be under pricing pressure in this competitive environment to keep the tariffs low for these services. They may even have to look at offering these services for free through their portal and mobile offerings and realize revenue through the increased data usage and ad-insertions.

User Experience

CSPs are migrating from mere content-based portals to Broadband entertainment portals. They combine the power of Web 2.0 services, offering rich content and feature-rich interactivity that provide a compelling experience for the users. CSPs have adopted new service creation techniques by incorporating rich User-Generated Content into mobiles and adding a viral flavor to increase the usage of pre-existing services such as SMS.

Ease of use will play an important role in the development of Mobile UGC and Social Networking services. We must realize that the experience of browsing the Internet through a PC will not be the same as browsing on a mobile phone. Unless appropriate bandwidth is made available for mobile devices to support media-rich Social Networking features, CSPs must provide feature-rich services to the user rather than media-rich features on mobile devices. Simplifying the experience of Social Networking and UGC and taking into account the limitations of the screens and keypads of mobile devices, will determine the success of these new services.

With the advent of camera phones and availability of Web 2.0 services on the mobile phone, users are encouraged to create personal videos and share them with their communities. CSPs will have to address challenges with rendering these amateur user-submitted videos to other users on their portals and mobile devices as these videos usually require an editorial intervention for transformation. Search and discovery of the user-submitted content poses another major obstacle to increase the accessibility of these videos on mobile devices.

Conclusion

The service creation landscape of Communication Service Providers (CSPs) has undergone dramatic changes in the last 20 years. From being a simple pipe carrying voice calls, the CSP infrastructure has transformed itself into fat pipes carrying rich media content and providing feature-rich services to customers.

This paper highlights the challenges that a CSP faces while creating new service offerings by exploiting the potential of Social Networking and User-Generated Content. CSPs must address these challenges to successfully achieve end-user acceptance of these new service offerings and realize new revenue streams.

About the Author

[Sandeep Chandrasekar Seshadri](#) is a Programmer Analyst with the Communications, Media and Entertainment (CME) Unit at Infosys Limited. He has 5 years of IT experience in Telecom, delivering services to leading [US telcos](#). He has been working for over 2 years as a Business Analyst for a leading US Telco in the areas of Broadband and Convergence Product development. Sandeep's experience in product development and his current role offers him insights into telco product offerings and new market developments. His areas of interest include Web 2.0 and Convergence services.

¹ The figure is based on 3 UK's press release, '3 customers driving boom in mobile user-generated content', dated September 28, 2006.

² 'The Coming Exaflood' by Swanson, Bret, in the Wall Street Journal, dated January 20, 2007 and 'The Internet's Capacity To Handle Fast-Rising Demand for Bandwidth' by Shapiro, Robert J, in the United States Internet Industry Association, dated September 14 2007.



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