THE IMPACTS OF USER-GENERATED VIDEO CONTENT TO THE INTERNET AND TELECOMMUNICATION BUSINESS

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ABSTRACT

Amongst the web 2.0 technologies, the user generated content (UGC) constitutes the major momentum changing the daily virtual lives of Internet users. This paper aims to provide a glimpse to the trend and offer further insights of UGC's implications to the Internet and telecommunication industries.

Keywords: User Created Content, Web 2.0, telecommunication, Internet.

INTRODUCTION

In the Internet business, the continuance of "eye-balls" economy still holds. To drive network traffic and boost advertising income, profiting-seeking websites value the agility in terms of leveraging and utilizing innovative technologies to receive public attention. The UGC, which benefits from the maturing broadband Internet penetration, has opened up a new avenue for user entertainment and involvement online. The popularity of UGC grows significantly as the Web 2.0 applications prevail, especially in Europe and North America. Blogspot, MySpace, Facebook, and Youtube have become the cornerstone online service providers and convergent portal of UGC. In addition, telecommunication carriers have increased their investment on facilities to extend the reach of UGC distribution from users' desks to their palms. This paper focuses on the emergence of ground breaking video UGC and how it affects the way people interact in the virtual world as well as in corporate environment. Through this study, the author offers further insights of UGC phenomenon by investigating the role of video UGC in the setting of business community. The discussion will be organized as the following: the background and status of Web 2.0, wireless telecommunication, and UGC development are presented;

then the research questions are raised and addressed in the methodology section; in the last we discuss the challenges, findings and implications of this video UGC.

THE INTERNET UPGRADE: WEB 2.0

Although the debate of what exactly Web 2.0 mean goes on, we adopt the definition in this research context as: "a collection of emerging technologies that enable social networking by offering Internet users the ability to add and edit content" (Granat, 2006). On the other hand, there is a certain level of consensus regarding the content of Web 2.0 technology. The major categories include: Online Collaboration, Information Distribution, Folksonomies, Internet Rich Applications (IRA), Online Service Automation, and Social Networking Sites. In Table 1, a brief description of the movement between the first generation Internet and Web 2.0 is presented. Although non-exclusive, the table delineates the technical leap that changes the virtual community. The Bit Torrent, namely the Peer-to-Peer (P2P) network transmission, for instance, not only caused multi-million lawsuits over intellectual property issue but also make multi-media proliferation possible.

Table 1. The Transition of Applications from Web 1.0 to Web 2.0

Web 1.0	Web 2.0
DoubleClick (recently acquired by Google)	Google AdSense
Akamai	BitTorrent
mp3.com	Napster
Content Management	Wikis
personal websites	Blogging
screen scraping	web services
directories (taxonomy)	tagging ("folksonomy")

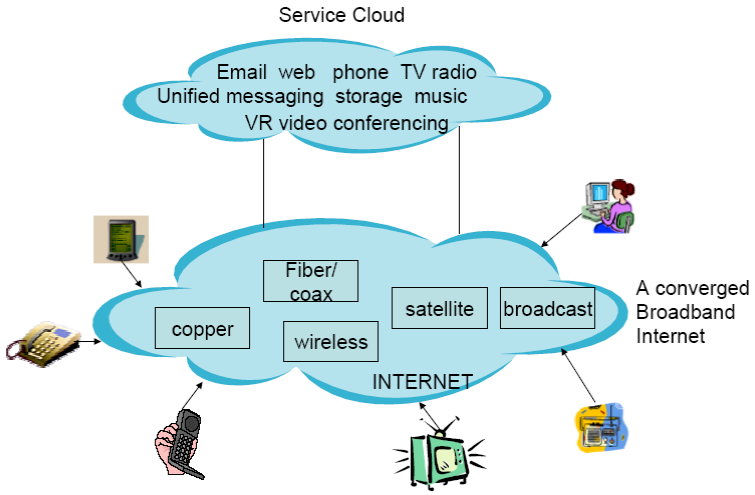
Source: O'Reily, 2005

DEVELOPMENT OF BUSINESS TELECOMMUNICATION INFRASTRUCTURE

According to a recent study by emarkter.com, the Asia-Pacific mobile subscriber base is estimated to reach 1.14 billion by the end of 2007, up from 0.95 billion in 2006. The market grew at a compound annual growth rate (CAGR) of 24% between 2002 and 2006. India passed Japan as the second-largest mobile services market in the region in terms of subscribers in June 2006. China has the most subscribers in the Asia-Pacific market. India still has vast room for growth, with 142.7 million subscribers in 2006 and a mobile penetration rate of only 13%. In the U.S., it is estimated that approximately there are 180 million subscribers in the end of 2004, by the mid-2006, the number rises to 205 million, and in April 2007, there would be 234 million wireless subscribers in U.S., where Cingular (namely the new AT&T Wireless), Nextel & Sprint and Alltel & Western Wireless occupied over 70% of total market share.

After cellular phone sales surge during the first four years of twenty first century, the market is experiencing a gradually flattened out demand curve since 2006. Although no one can precisely forecast the next blossom, companies cannot afford to wait as the new market entrants and existing competitors striving to increase respective customer base. The good news, however, is around the corner as the current cellular network technologies is in the process of developing broadband transmission capable infrastructure. In some countries, 3G (CDMA 2000 and WCDMA standards) network is capable of delivering throughput at 2Mbps rate or even higher. Based on the current pace of expansion, the future wireless service get increasingly ubiquitous and pervasive so that a "converged" network or service cloud will emerge (Chatterjee, 2002), seen in Figure 1.

Figure 1. A Convergent View of Information Service in the Future



Source: Chatterjee, 2002.

Such convergence has been realized to some extent nowadays. It serves as valuable opportunity and important momentum for telecommunication vendors and technology providers to transform their business models rapidly. Enriched data service, for example, constitutes a fast growth in today's telecommunication vendor's revenue. Take music download for instance, mobile music is the leading type of premium content whose global mobile music revenues will reach $17.6 billion by 2011, maintaining a compound annual growth rate (CAGR) of 19.8% from $7.1 billion in 2006. Following this, global mobile TV subscribers are set to number 130 million by 2011, up from 3.2 million in 2006, and associated revenues will grow to $17.6 billion by 2011, with a CAGR of 76.7% from $1 billion in 2006, which will make mobile video as large as mobile music in 2011. Mobile gaming revenues were also up in 2006, growing 27% to $2.3 billion (eMarketer, 2007).

THE STATUS QUO AND PROSPECTIVE OF UGC

In contrast to the "usual" multimedia content, or engineered content (Chin, 2006), which is produced in an organization context and available through public network, UGC, or the "amateur" content (Geist, 2006), is made by individual who is not an expert or a professional in media creation but an adopter or receiver of the technology. To better illustrate the comparison between UGC and engineered content, see Table 2.

Table 2. Comparing UGC and Engineered Content

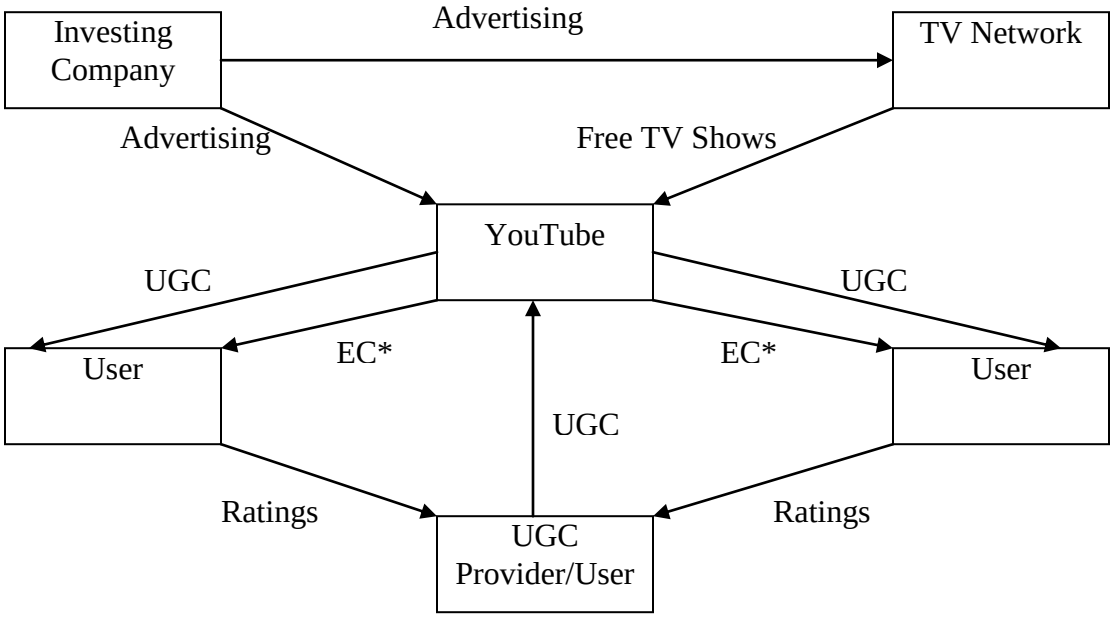
	Engineered Content	UGC
Producer	Official, Organization, Company	Individual Technology Adopter
Production	• Conducted by professionally trained staff and experts. • Well equipped with supportive financial budget.	• Required no proper training or certification. • Very low or zero dollar budget.
Editing	• Edited by experts.	• Edited by user.
Regulation	• Under strict regulation of legislation and organization (e.g. FCC).	• Loosely regulated. Subject to less strict codes of conduct.
Dissemination	• Disseminated through public and private network that is fee-based.	• Disseminated through network that is not proprietary.
Intellectual Property	• Subject to sensitive and stringent intellectual property rules and laws.	• The supervision of intellectual property is assigned to hosting website and users themselves.

THE BUSINESS MODEL OF UGC

Although UGC assumes a variety of forms, which include textual data (such as wikis and weblogs), collaboration content (such as discussion groups and BBS), and visual media content (such as video-blogs), we focus on the video UGC in this paper. Due to the exploratory idiosyncrasy of this study, the author adopts a basic approach of content analysis, which attempts to answer questions such as: How does UGC model operate? What are the benefits? Who is involved? According to Yin (1994) and Eisenhardt (1989), it is suggested that studying cases may be used when little is known about a phenomenon, or if the phenomenon that is under studied is in nascent stage of development.

Five major UGC convergent portal websites are selected in this study: YouTube, Metacafe.com, Google Video, 6rooms.com, youku.com. The subjects are selected based on popularity and service content. Among them, three are U.S. based while the rest two are based in China. Varying in size and cultural environment, the hosting website samples provide comparisons across a series of attributes. Prior to looking into the details of comparison, these subjects do share one commonality – the business model (shown in Figure 2), which can be generalized to all five portals with few structural changes.

Figure 2. The Business Model for UGC Portal



* EC = Engineer Content

In the model, companies pay TV networks and YouTube to promote their products and services, which is assimilated with the UGC and other digital content offered by YouTube. The users can be both contributors and raters, who rate other people's work online. The traditional EC providers, such as Fox Network and CBS, attempt to cut a share of rapidly growing digital content market by publishing free TV shows on YouTube so as to reach more audiences.

Comparative Analysis of UGC Portals

The five subjects are compared based on the characteristic attributes, as shown in Table 3, examining each attribute and how it affects the business operation of each company.

Table 3. UGC Portals Comparison

Subject	Location	Scale	Service Content	Sponsorship	DRM Enforcement
YouTube	U.S.	Large	Video Upload/Sharing	Commercial	Fairly Strong
Metacafe	U.S.	Medium	Video Upload/Sharing	Commercial	Fairly Strong
Google Video	U.S.	Large	Video Upload/Sharing	Self Supported	Fairly Strong
6rooms	China	Medium	Video Upload/Sharing	Commercial	Weak
Youku	China	Large	Video Upload/Sharing/Production	Commercial	Weak

DISCUSSION

Despite exciting opportunities brought by UGC, failing to address the challenges posed by such new type of information can jeopardize the business. Borrowing from successful practices of major established hosting websites, we will cover some of the most concerned challenges and provide a guideline in terms of how to confront them. In addition, a summarization of UGC implications will be presented in this section.

Some ICT practitioners pointed out that the biggest issue affecting the use of UGC in a corporate environment is the credibility, motivation, and oversight of the content being provided. Administrative chaos can be generated from such free form of content dissemination. For hosting websites, such as Youtube.com and Metacafe.com, violation of copyright or federal regulations on a systematic base might result in endless lawsuits and even the collapse of public relation management. In long term, another shortcoming of UGC model is the instability of content production in the dimensions of both quality and quantity. Without a proper mechanism of credibility reward, the hosting company cannot guarantee the consistent service provided and sustainability of company's business operations that are highly correlated with UGC. While facing the intellectual copyright problem raised by freely distributed UGC, companies do not want to push away the customers. In other words, a balance is needed to juxtapose the use of Digital Right Management (DRM) technology and motivating creative UGC input.

REFERENCES

(References & Appendices withheld due to space limitations in Conference Proceedings)