Content characteristics of IPTV : analysis of sensationalism, localism, and interactivity

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2014

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Analysis of Sensationalism, Localism and Interactivity[a]

Abstract

This study combined observation and content analysis to examine professional IPTV content in terms of sensationalism, localism, and interactivity. Observational results found these videos were sensational, localized, and somewhat interactive. Content analysis showed that IPTV was different from traditional TV content in that it used more sensational sex and celebrity stories, used more tabloid packaging, and appealed more to emotions through vivid storytelling techniques, in both entertainment and news content. In addition, localism was reflected in the selection of geographically and culturally proximate stories. The "local hook" was more important in news than in entertainment. This case utilized some interactive features and social media for redistributing and for promoting selected content, but it still lacked two-way user interactivity. Implications are discussed.

Keyword: IPTV**,** web TV, internet videos, content characteristics, sensationalism, localism, interactivity

Internet Protocol television (IPTV), a fast-growing convergent medium, delivers multimedia services over Internet networks. IPTV services can be divided into paid, wall-gardened 'IPTV via set-top-box (STB)' and free, open-structured 'web TV' (Grant& Meadows, 2010). The content and structure of the former, which mainly retransmits existing professionally produced content, is similar to traditional paid television (Kim, 2009) while the latter has various content sources, including user generated videos, original webisodes with interactive features, and conventional programming. At present, the number of IPTV subscribers across the globe reached 92 million with a significant growth rate of 18.5% in 2013 (ABI Research, 2013). Asia Pacific, the second largest IPTV market, is set to have almost half of the global IPTV subscription by 2014 (Duffy, 2011).

The rise of IPTV has drawn much academic attention on its system architectural models (Xiao, Du, Zhang, Hu & Guizani, 2007) and business models (Bouwman, Meng, Van der Duin, & Limonard, 2008; Simpson & Greenfield, 2009). Some take a socio-technical approach to contextualize perspectives forecasting IPTV development (Kim, 2009; Shin, 2007b) while others investigate diverse factors affecting its diffusion (Shin, 2007a). A Nielsen's global survey found that 74% of Internet users watched online videos because of the timeshifting viewing style and enhanced picture quality (Nielsen Wire, 2012). Although people use IPTV services for the convenience of watching real-time and on-demand videos, compelling content is a crucial determinant affecting the adoption and continuous use of this new medium (Reardon, 2010). However, only a few scholarly studies have paid attention to IPTV content, which calls for further investigation, especially when IPTV programming shows distinct characteristics from conventional TV programs.

In order to fill the research gap, this study aims to examine content characteristics of a popular interactive IPTV service in Singapore, RazorTV, which professionally produces

original audiovisual content across various genres and distributes videos via social media and mobile platforms. This study first used a web observation to identify sensationalism, localism, and interactivity as three key content characteristics of IPTV programming. Previous research (HendriksVettehen, d'Haenens, & Kleemans, 2009; Kim, 2007; Straubhaar, 2003; Torosyan & Munro, 2010) on these features were then used to analyze content of this emerging online audiovisual service. In the process, we developed a new set of codes for analyzing IPTV content in the future. In addition, the empirical findings may provide insights for industry players to improve web TV programming with interactive features as well as shed light on internet videos' distribution strategies on social media and mobile platforms.

IPTV Content Management & Strategies

IPTV operators face challenges to aggregate and create appealing content in order to substantially differentiate their services from traditional TV services and other competing IPTV services (Kim, 2009). Dominick (2010) classifies IPTV videos into professional-produced programming, which are primarily retransmitted from traditional media, and amateur-produced content (user-generated videos; UGV). The IPTV platform is considered a crucial channel for worldwide broadcasters and TV network operators to redistribute programming and to reach Internet users for additional revenues. Repurposed audiovisual content is important for traditional TV operators' cross-platform distribution and emerging IPTV services' content lineup (Eastman & Ferguson, 2008). TV shows, films, music, and educational content are the most popular genres among traditional audiovisual content (Wilkinson, 2008). For example, Hulu and Netflix are leading IPTV operators which aggregate recent audiovisual programs from established content producers (e.g., Disney, News Corp, NBC Universal) by charging online users affordable monthly subscription fees.

Amateur-made UGVs make up the bulk of web TV content (e.g., YouTube) but only play a complementary role to paid, wall-gardened IPTV content. According to Cha (2013), the time that Americans spent on watching UGVs online displaces time spent on watching traditional TV. Comparatively, there are less original or exclusive IPTV videos made by professionals. Because web videos' perceived value is decreased if they are easily accessed (Eastman & Ferguson, 2008), having some original content is crucial to paid IPTV services to appeal to subscribers, whose eyeballs and attention are needed for this rising industry. Eastman and Ferguson (2008) further suggested that paid IPTV operators should consider audiences' online viewing habits, demographics, compatibility, and content flow when making innovative content strategies. Taken these together, the next section delineates several key concepts pertaining to appealing content.

Sensationalism in IPTV Content

One key characteristic of TV content that arouses viewers' emotions and draws much research attention is sensationalism (Berkowitz, 1993). Sensationalism is conceptualized as content and formal features that elicit viewers' attention and emotional responses (Grabe, Zhou & Barnett, 2001). Prior studies have found that the prevalence of arousing TV news was positively associated with the competitive pressure at the market level (Hendriks Vettehen, Zhou, Kleemans, D'haenens, & Lin, 2012; Zhou, Lin, & Zhang, 2011). The more commercialized the market is, the higher the sensationalism in its news. Conversely, the tighter the government control, the less such content. Under light-touch Internet regulations, IPTV operators are allowed to offer a wide range of videos without being restricted by strict content classifications. They have more freedom to use the sensational appeal in producing audiovisual content so as to attract netizens' attention in the highly competitive online environment.

The characteristics of TV news sensationalism is usually measured by three main categories: "dramatic content," "tabloid packaging" (formal features), and "vivid story-telling" (Grabe, Zhou & Barnett, 2001; Hendriks Vettehen, Nuijten, & Beentjes, 2007; Hendriks Vettehen, Zhou, Kleemans, D'haenens, & Lin, 2012). Dramatic content refers to dramatic subject matter dealing with crime, violence, natural disasters, and accidents. Hendriks Vettehen, d'Haenens, and Kleemans (2009) later used arousing content as a variation to dramatic content; however, the two terms share similar meanings. This study regards dramatic content as the first key characteristic of sensational IPTV content. The second characteristic is dramatic picture which refers to images of dangerous situations (e.g., violence, wars, and disasters) and their outcomes (e.g., death and physical trauma) (Slattery & Hakanen, 1994; Hendriks Vettehen, Nuijten, & Beentjes, 2005).

In terms of tabloid packaging, prior studies mentioned dramatic filming (e.g., close-ups) and dramatic editing (i.e., decorative techniques like wipes and split screens) (Grabe et al., 2001; Hendriks Vettehen et al., 2005). Usually videos on IPTV use fancy filming techniques and transitional styles in order to appeal to the young generation who tend to enjoy perspective or experimental shots and fast-paced, montage editing styles (Burstein, 2013). Due to the digital mashup convergent culture, a lot of IPTV content inserted additional audiovisual elements (videos, CGI, audio, and sound effects) from other sources to create additional meanings or to enrich their presentations.

Inspired by European studies, "vivid storytelling" is identified as another key category of TV news sensationalism which is used to shorten the distance between audiences' real world and the remote news context (Hendriks Vettehen, Zhou, Kleemans, D'haenens, & Lin, 2012). There are two strategies, "layperson speaking," which involves ordinary or anonymous people as interviewees in news stories, and "personalization," which describes

selected persons' experiences relevant to the topics so as to give a human touch to complex or abstract issues.

Prior studies find that good quality sensational news can appeal to local audiences (Hofstetterand Dozier, 1986; Slattery, 1994) and improve audiences' recall of the online content (Lee, 2005).

Localism in IPTV Content

Localism is another important content strategy to attract local audiences (Lee, 2005) and to increase audiences' attachment to communities (Mersey, 2009). The expression of localism in the video marketplace is considered in two aspects: geography and program content (Slattery, Halanen & Doremus, 1996). Some online content is based on vernacular creativity in non-elite social contexts, which amplifies ordinary voices (Lally, 2007). When youths are exposed to local content, they become more engaged in political participation (Puig Abril, Soth, & Rojas, 2010). Even though IPTV services are on the globally accessible Internet, most are meant to serve local audiences. The localized and grassroots content strategy can be used in IPTV's production to fulfil untapped demands.

Prior research treats geographical proximity as a basis of localism (Torosyan & Munro, 2010) in that audiences' perceived localism is associated with locality of program production (Hubbard, 2010). However, due to media convergence and ownership concentration, it is necessary to reconceptualize localism in the new media environment (Conti, 2011). Increasingly, the concept of localism goes beyond 'locations' and becomes a cultural-geographical mixture (Straubhaar, 2003). Cultural proximity, which is mostly used to explain audiences' preferences towards products similar to their cultures, is widely adopted in understanding media content flow and media choices in a transnational environment (Ksiazek &Webster, 2008). Other factors affecting cultural proximity are related to viewers' cultural

background, such as shared history, religion, and culture (Castelló, 2010; Hood, 2007). This study therefore takes localism in IPTV content as a geographical and cultural construct.

Interactivity in IPTV Content

Interactivity is the key feature to differentiate IPTV from traditional TV (Hjelm, 2008; Kim, 2009), which influences users' control over video viewing and thus increases its use and acceptance (Shin, 2007a). Interactivity is generally conceptualized to have several components, including technology-based interactivity, behavioral interactivity, and perception of interactivity (Johnson, Brummer II & Kumar, 2006). Technology-based interactivity is made possible by technological features such as instant video chats, comments, and emails. These interactive features are effective ways for content creators to directly engage new media audiences (Kim, 2007). Behavioral interactivity entails the bi-directional exchanges between senders and users, such as two-way communication, user control, and responsiveness (Kim & Lee, 2013). Recent studies, however, shift the focus towards individuals' perception of interactivity, which relates to how users experience and think about issues of reciprocity, responsiveness, timeliness, and engagement (Kim & Lee, 2013). Perceived interactivity has a positive impact on both attitudes and memories of consumed content (Chung & Zhao, 2004).

Interactivity allows users to control interactions with systems, content creators, and other users, which enable multidirectional communication or information exchange in three forms: user-to-user, user-to-document, and user-to-system interactions (McMillan, 2006). Behaviorally, IPTV's user-to-user interaction is manifested in conversations or comments in discussion forums or social media. Technologically, user-to-document interaction refers to individuals' watching, rating, or commenting on web videos. User-to-system interaction is in the form of member registration or video downloading. Only a few prior studies have examined interactivity in IPTV's context. According to Shin (2007a), IPTV's interactive

features are highly valued by potential users and are critical in determining its adoption. If IPTV's features encourage active participation and information sharing, they can enable a high degree of interactivity, and thus, using the new media is able to support the forming of user communities (Silverston et al., 2009). Levy and Nebenzahl (2008) examine users with an interactive communication model, and the results show that viewers' involvement in TV programs has positive effects on the extent of their interactive communication behavior. Kim and Lee (2013) find that perceived interactivity and attitude toward IPTV are correlated with motivation clusters, and, to most viewers, perceived interactivity of IPTV has positive effects on attitudes toward it. Perceived interactivity of IPTV improves user satisfaction as it allows users to interchange opinions and information with others and to create communities (Blasco-Arcas, Aznar-Baranda, Herna´ndez-Ortega, & Ruiz-Mas, 2011). Moreover, interactivity leads people to view online user-generated content as a credible source of information because its bottom-up participatory process builds trust (Kim & Lee, 2013). As an increasing number of viewers watch online user-generated content while using social media (Wilkinson, 2008), IPTV operators use them to interact and engage users (Dominick, 2010).

This content analysis study, which adopts Kim's (2007) measurements, examines technology-based interactivity by analyzing pertinent interactive features of IPTV websites. As for behavioral interactivity, it is investigated by usage of video comments and ratings, as well as social media (i.e., Facebook, Twitter, and YouTube) as indications of user-to-user, and especially user-to-document interactions. We cannot document user-to-system data in this analysis because there is no access to registration and downloading data. Also, as this study is content based, perceived interactivity has to be studied with users.

Singapore's IPTV context

With a high Internet and mobile penetration, 84.5% of Singaporeans watched online videos in mid 2012 (comScore, 2012). Currently, Singapore has two national paid IPTV

services, mio TV was first offered in 2008 by Singtel, the largest telecommunication

company, to increase competition in the local pay-TV business, and the other was first

provided in 2013 by cable TV operator StarHub, but only to commercial customers in

response to multiscreen audiovisual competition. MediaCorp, the only broadcaster, has a

XINMSN site to allow audiences to watch the latest TV episodes. The selected case in this

study, Straits Times RazorTV, is the first and only interactive IPTV in Singapore, which

provides free and originally produced online videos (Hou, 2008).

Launched in August 2008, RazorTV is an innovative attempt by Singapore Press

Holdings (SPH), the largest print media in Singapore, to explore the new media market and to

cultivate online viewership (Kiat, 2008). The Media Development Authority of Singapore

(MDA) has issued a niche TV license to RazorTV which focuses on offering live and video-

on-demand local content. As IPTV services tend to attract young users (Hart, 2003),

RazorTV's content caters to target audiences between the ages of 18 and 40. After its revamp

in 2009, RazorTV's emphasis turned to local, entertainment, and lifestyle stories. It also used

user-generated content (UGC) from STOMP, its SPH's sister site, to create a series of

programs. Linking to social media, RazorTV makes online video consumption a part of social

networking and interactive experiences. Its unique local content and interactive features have

gained popularity among young Singaporeans. RazorTV has won the 2009 Asia Interactive

Award and the 2009 Wan-IFRA's Silver Award for Best Newspaper Website and was listed

among the 2010 Hitwise Top 10 Websites, making it a success IPTV story to investigate.

Method: Observation & Content Analysis

This study investigates RazorTV, a popular interactive web TV service, which

produces professionally made media for Internet distribution, specifically videos with

interactive and social media features. Under a niche IPTV licensing and light-touch content

regulation, RazorTV can produce web videos which are distinctively different from conventional TV programs. First, this study used web observation to understand this case's content structure, presentation, and strategies. Second, content analysis is used to examine characteristics of its news and entertainment programs by analyzing levels of sensationalism, localism, and interactivity. This study hypothesizes that IPTV content has high levels of sensationalism, localism, and interactivity, especially in entertainment content.

As IPTV may feature different content characteristics from conventional TV programming, we first conducted the web observation and kept a daily log of RazorTV for one month in December 2011 in order to generate pertinent content analysis categories. The foci of the observation were to identify: (1) the most frequently updated and popular programs, (2) prevalent content genres and themes, (3) prevalent production structure and patterns, (4) prevalent interactive features, and (5) prevalent cross-promotion strategies. Based on observation results, we selected the four most frequently updated programs (Singapore Now, Razor Pop, R. Age, and Point Blank) for content analysis, as they contained over 90 percent of all updated content during the observation period. These videos could be classified into two types: news and entertainment programming.

The composite week method was used to sample RazorTV's videos webcasting from January 1, 2012, to March 31, 2012, to collect data for three composite weeks. That is, each weekday was randomly selected from a certain month of the three-month sampling period to make a composite week. As a result, 148 video clips from 15 chosen days (3 x 5 weekdays) were sampled to be examined by three trained graduate students who had three 3-hour training sessions after codebooks were developed and refined. Inter-coder reliability coefficients using Krippendorff's Alpha ranged from 1.00 for simple categorical counts to .64 for some measures requiring discernment (for example, dramatic picture) and other post-

production effects which could be difficult to diagnose (for example, inserted music). The results were generally acceptable and satisfactory.

Measurement of Sensationalism

The measurement of sensationalism in this study was adapted from Hendriks Vettehen, Nuijten, and Beentjes' (2007) study and Grabe, Zhou, and Barnett's (2001) research. It consisted of three main categories: "dramatic content," "tabloid packaging," and "vivid storytelling."

Dramatic Content

Dramatic content entailed three aspects: dramatic subject matter, dramatic pictures, and dramatic sound.

1) "Dramatic subject matter" referred to a story subject containing dramatic themes that potentially arouse viewers' emotional responses. Based on the web observation results, this code was divided into five sub-codes: "Justice and Police," "Violence/Molestation/Riot/War," "Unnatural death/Accident/disaster," "Sex," and "Celebrity." Each dramatic subject matter was only coded once when appearing in coded videos.

2) "Dramatic picture" referred to images that exert an influence on human information processing by virtue of their vividness (Brosius, 1993). Zhou, Lin, and Zhang's (2011) categories of dramatic visuals were adapted, including "Violence/Molestation/Riot/War," "Accident/Disaster," and "Death/Object related to death." The web observation found that RazorTV has many videos related to entertainment and celebrities. Two new sub-codes, "entertainment" and "sex," were added. Sex-related dramatic pictures include videos about sexually explicit behavior, sexual orientation, and inter-gender issues. The number of dramatic pictures in each video was counted.

3) "Dramatic sound" referred to sounds that were not artificially inserted in videos (HendriksVettehen, Nuijten, & Beentjes, 2007). For example, background music from an entertainment event was defined as dramatic sound. The number of dramatic sound segments used in each video was counted.

Tabloid Packaging

To measure IPTV's "tabloid packaging," sub-codes "unconventional camera perspectives" and "unconventional camera movement" were modified from previous studies (Hendriks Vettehen, Nuijten, & Beentjes, 2007). Based on the web observation results, we found that many videos contained "inserted video" and "inserted computer generated images (CGI)" and thus added two new sub-codes. Tabloid packaging consisted of three codes as follows:

1) "Dramatic filming" referred to using unconventional filming techniques and camera manipulations to stimulate emotional responses or to increase vividness. It included "unconventional camera perspectives" (e.g., bird's-eye views, extremely low or high angles of shots), "unconventional camera movement" (i.e., shaky, handheld shots and quick and/or repeated camera movements), "Close-ups," and "Point-of-View (POV) shot" (i.e., shots representing viewers' subjective perspectives).

2) "Dramatic editing" referred to post-production effects, including transitional effects (e.g., dissolve, wipe, and fade) and non-transitional effects (e.g., split screen, freeze or compressed frame, mosaic, apparent alteration of luminance, speed and color, and repeated images).

3) "Inserted content" referred to adding audiovisual elements to videos during post-production to increase vividness. It entailed "inserted video" (i.e., added pictures from movies, commercials, or MTV), "inserted computer generated image (CGI),"

"inserted music," and "inserted audio-effect." When coding "Tabloid packaging," the

frequency of occurrence in videos was counted.

Vivid Storytelling

"Vivid storytelling" consisted of "layperson speaking" and "personalization."

"Layperson speaking" referred to comments made by an unidentified person while

"personalization" referred to identified interviewees (e.g., experts and witnesses). A sub-code

"verbalized emotion" (Hendriks Vettehen,Nuijten, & Beentjes, 2005), when reporters or

interviewees used voice-overs or stand-ups to express emotions explicitly, was added in this

measurement. This study further developed a new sub-code, "non-verbal emotion" referred to

emotions expressed through facial expression or body language. To measure "vivid

storytelling," the coders counted frequency of occurrence in videos.

Measurement of Localism

This study developed codes to measure localism of web TV content in three aspects:

geographical location, cultural affiliation, and language use.

1) *Geographical location*

The geographical location of a story measured whether the content was related to the

local audience. A dichotomous scale was used to decide if the story context happened in

Singapore or elsewhere.

2) *Cultural Proximity*

When videos were originated outside of Singapore, we wanted to see whether there

was an attempt to approximate the story to its local audience by either introducing a local

angle or a local implication for cultural affinity. The coders first recorded from which

countries they stories originated, then they would determine if the story was reframed to cater to local needs by including ramficiations for the local audience, by referring to cultural phenomena, artefacts, or customs related to the Singaporean context.

Measurement of Interactivity

Interactivity is one of the key characteristics which differentiate IPTV from traditional TV. Technical features which allow web TV audiences to give feedback to audiovisual content and communicate with producers and other users were analyzed in the study in order to gauge technology-based interactivity (Kim, 2007). This study analyzed the IPTV's interactive features which coded average numbers of views, ratings, and comments of selected videos from the official website. Because of method limitations, we focused more on technological and behavioral interactivity to document user-to-user, and user-to-document interactivity.

Additionally, social media have become crucial channels to redistribute IPTV's selected videos to increase exposure and reach, to interact and engage audiences for preferences and loyalty, and to publicize brands and programs. This study also measured interactivity of this web TV's social media (i.e., Facebook, Twitter, and YouTube). The coders first counted the percentages of web TV videos redistributed on the three social media platforms. They also counted the average numbers of likes, retweets, ratings, and comments of the videos shown. These content codes map closely against technological interactivity and behavioral interactivity (Johnson, Brummer II & Kumar, 2006). Nonetheless, users' perceived interactivity, which cannot be measured by content analysis, is beyond the scope of this study.

Web Observational Results

When RazorTV's webpage is accessed, the most recently updated video plays automatically with a list of the latest and most popular videos on the right and a segment of editor's picks below the main screen. Social media are placed saliently on the top of the screen. When viewers scroll down the website, selected videos categorized by popular genres are shown in separate segments (i.e., news, current affairs, lifestyle, entertainment, and sports). Popular videos are singled out to catch users' attention. Each video has its synopsis, the number of views, and ratings. Interactive games, online radio links, Google search, and word tags can also be found on the homepage. RazorTV users can interact with content creators or other users by commenting on videos or participating in forum discussions. Some features allow them to personalize video viewing, such as choosing favorite videos or adding videos to the "personal broadcast station" channel.

RazorTV Content

The huge amount of on-demand videos are structured and archived on Razor's website. Among the 28 channels produced by RazorTV, four channels are updated frequently: "Singapore Now" (local news), "Point Blank," (investigative program), "Razor Pop," (entertainment show), and "R. Age" (fashion channel). RazorTV's programs are mostly presented by young TV professionals in conversational tones with many vox pops (interviews with the general population), aiming to make news entertaining and personal. During the 1-month observation period, "Singapore Now" and "Razor Pop" were the two most frequently updated programs with a total of 137 and 143 video clips respectively. "R. Age" and "Point Blank" had 49 and 24 videos respectively.

In addition to "channels," videos are organized in "most popular" and "editor's pick" archives. The former is ranked by viewing statistics while the latter features the latest updated

clips. On average, there are 12 videos updated per day with no fixed schedule of content updating. Each episode is divided into several 2-3-minute clips. Consequently, viewers can watch videos in a flexible and non-linear way.

RazorTV's online videos can be mainly categorized as either news-oriented or entertainment-oriented. Most news-oriented content tends to be light-hearted in nature. Even for serious topics, the news reports are relatively informal. Various techniques in filming, editing, and storytelling are jointly used to increase the hipness and vividness of visual presentation. RazorTV's subjects tend to be emotionally arousing, frequntly featuring entertainment, celebrities, and sex-related topics. The packaging stategies use many dramatic filming techniques, post-production editing techniques, and vivid storytelling techniques. These observation results serve as the basis to identify "sensationalism" and "localism" as key content charactersitics and to add or remove sub-codes for content analysis.

RazorTV's Interactive Features

To improve content distribution and to cultivate viewership, RazorTV's website has embedded interactive features, including comments, ratings, sharing, RSS feeds, and word-tags. The discussion forum enables its users to post opinions. The "share" function allows users to easily link RazorTV's videos to their social networking sites (i.e., Facebook).

In addition, RazorTV makes an effort to virally promote its selected audiovisual content through social media. It constantly posts information of new content for Facebook and Twitter followers to invite participation, discussions, and video sharing. On YouTube, a RazorTV site is established to publish updated videos to reach global viewers. As Razor TV's local short video clips are suitable for watching on smartphones, it has become the most popular iPhone App in Singapore. The observation results identify "interactivity" as a key content characteristic for content analysis.

Running head: CHARACTERISTICS OF IPTV CONTENT

Content Convergence & cross promotion

On-going convergence in news content and cross-promotion occurs among SPH's media. With respect to content convergence, "Ground Zero" is RazorTV's weekly citizen journalism program which selects hot stories with user-generated pictures or videos from its sister website, Stomp.com, and repurposes them into a show. Controversial topics that encourage heated discussions are especially favored by RazorTV. The two hosts of "Ground Zero" present and comment on repurposed UGC with an informal and cynical tone. Stomp also selects videos from "Ground Zero" or other hyper-local videos to enrich its multimedia content on the segment called "Reallife.sg." Even the editors of Straits Times sometimes selected RazorTV's newsworthy stories for publication in their newspaper, a leading English-language newspaper in Singapore. As for cross-promotion, Stomp.com.sg and Straits Times.com have separate zones to showcase the latest RazorTV videos. Meanwhile, RazorTV's website has the rolling "news flash" which presents daily news headlines on Straits Times in addition to displaying SPH's media brands.

Content Analysis Results

A quantitative content analysis was used to examine the free IPTV's content characteristics in terms of sensationalism, localization, and interactivity. Since RazorTV produces mainly news-oriented and entertainment-oriented videos, it is meaningful to show their differences. We categorized videos from "Singapore Now" and "Point Blank" as news (n=78) and videos from "Razor Pop" and "R. Age" as entertainment (n=70). For data analysis, we used chi-square tests of independence and t-tests when appropriate to assess differences between the two categories.

Sensationalism

Running head: CHARACTERISTICS OF IPTV CONTENT

In terms of dramatic subject matter, sex-related and celebrity-related themes were found to be the most prevalent in the selected videos. As shown in Table 1, approximately 24.3% of all videos had sex-related subjects, and 29.7% of them included celebrity elements in their subjects. Other dramatic subjects were sporadic. In comparison, entertainment videos involved more celebrity-related stories than news videos (χ^2 (1, N=148) =42.93, p<.001), whereas news contained many more justice/police subjects, as revealed by Chi-squared tests (χ^2 (1, N=148) =8.60, p<.003).

<Table 1 about here>

Some dramatic subjects of traditional TV news (e.g., violence, riots, malpractices, accidents, disasters, and deaths) seldom appeared in this IPTV production, and others (i.e., extremism, and scandals) did not occur in the sample at all.

In terms of dramatic picture and sound, Table 2 shows pictures involving sex (*M*=1.66, *SD*=4.43) and entertainment elements (*M*=2.2, *SD*=5.86) were frequently used in the selected video sample while other categories of dramatic pictures did not appear often. Comparing news and entertainment videos, we found significantly more sex-related pictures (*M*=2.56, *SD*=5.66 in entertainment videos than in news (*M*=0.85, *SD*=2.72, *t* (146) =2.38, *p*< .05); the same was true for entertainment pictures (*M*=4.63, *SD*=7.86) in entertainment videos than in news video (*M*=0.03, *SD*=.23, *t* (146) =5.17, *p*< 0.001. However, entertainment videos had no dramatic pictures regarding accidents, and deaths. On average, dramatic sound was used in a moderate manner (*M*=.44, *SD*=1.11). In comparison, entertainment videos incorporated more dramatic sound (*M*=0.79, *SD*=1.48) than news videos (*M*=0.13, *SD*=0.41, *t* (146) =3.76, *p*< 0.001).

<Table 2 about here>

In terms of "tabloid packaging," Table 3 shows that both dramatic filming and dramatic editing were found to be frequently used in the sample. Unconventional camera perspectives (M=2.18, SD=3.19) and close-ups (M=3.63, SD=4.31) and were found to be the most popular camera techniques for this IPTV service, whereas dramatic editing were even more frequent involving both transitional effects (M=4.69, SD=8.07) and non-transitional effects (M=3.44, SD=4.56). However, news videos tended to use more transitional effects (M=6.50, SD=10.31) than entertainment videos (M=2.67, SD=3.49, t (146) =2.96, p< 0.01.) while entertainment videos were inclined to use more unconventional camera movements (M=0.93, SD=2.03) as compared to those in news (M=0.42, SD=0.86, t (146) =2.007, p< 0.05.); more non-transitional effects (M=5.13, SD=5.66) as compared to those in news (M=1.92, SD=2.48, t (146) =4.54, p< 0.001.); more inserted video (M=1.46, SD=1.89) as compared to those in news (M=0.22, SD=0.62, t (146) =5.47, p< 0.001.); and more inverted music (M=1.36, SD=1.56) as compared to those in news (M=0.58, SD=0.78, t (146) =3.90, p< 0.001).

<Table 3 about here>

In terms of "vivid-storytelling" Table shows that personalization (M=2.85, SD=2.99) and layperson speaking (M=1.51, SD=3.94) to be prominently used techniques. We found that layperson speaking was used to an identical degree between news (M=1.51, SD=3.53) and entertainment (M=1.51, SD=4.39). No significant difference was found in the use of personalization between news and entertainment. However, both verbal emotion (M=0.46, SD=.93) and non-verbal emotion (M=0.80, SD=1.50) were found to be used more than in news (M=0.1, SD=0.11 in both categories). The use of emotion, even though statistically significant, was moderately used, however.

<Table 4 about here>

In sum, the findings confirmed that sensationalism was one critical characteristic of IPTV. Different from the use of sensationalism by conventional TV, sex and celebrity appeared to be two key themes in this IPTV's dramatic content (i.e., subject matter and pictures), especially salient in entertainment-oriented content. It also used dramatic filming and editing frequently.

Localism

Producing local content is part of the media's social responsibility to their local communities. It is also a key content characteristic of IPTV to appeal to local audiences. In this sample, 68.9% of videos covered stories happening in Singapore. This means RazorTV had a high level of localism in terms of geographical locality. News (80.8%) features more local fare than entertainment (55.7%, χ^2 (1, N=148) =10.81, p<.005)

As for cultural proximity, when examining the 46 videos (31.1%) covering events overseas, most were from East Asian cultures: Japan was mentioned 12 times, followed by Taiwan (10 times), South Korea (8 times), China (8 times), and the U.S. (8 times). In these videos, nine news stories and half of the entertainment stories (18 out of 36) were reframed to cater to local culture and needs. Apparently, the "local hook" was more important in news than in entertainment.

<Table 5 about here>

In short, localism was an important content strategy of web TV. The findings revealed that the majority of web TV content was related to happenings within Singapore. Among those from foreign sources, many were repurposed to achieve cultural proximity.

Running head: CHARACTERISTICS OF IPTV CONTENT

Interactivity

With respect to technological interactivity, this IPTV service provided an array of interactive features on its website, including navigation functions (i.e., archives, search functions, and word tags) and communicative functions (i.e., comments, ratings, forums, and links to social media). The numbers of views received by the videos in the sample varied to a great extent: some attracted several thousands of views while others reached only hundreds. On average, each video in the sample attracted 1,789 views. Usually, the first part of one episode drew much attention. Sex-related topics tended to attract more views. However, viewers rated the selected videos but left no comment on the official website. On average, each video is rated 8.58 times by viewers. In comparison, news-oriented videos (M=9.82) were rated slightly more frequently than entertainment-oriented content (M=7.20).

As for social media, about 34.5% of videos shown on this IPTV website were redistributed via Twitter, 18.9% via Facebook, and only 1.4% via YouTube. More news videos were tweeted than entertainment video (χ^2 (1, N=148) =12.296, p<.001). The findings showed that people used the emerging platform of Twitter more than Facebook and Youtude in redistribution, especially for news content, and seldom utilized YouTube to showcase videos. However, redistributed videos on these social media platforms received very few ratings and comments.

<Table 6 about here>

Although this IPTV service provided interactive features, the interactive features were not sufficiently utilized by users, and the interactions between producers and audiences through social media were still mostly one-way. There was no evidence of interactive comments.

Discussion and Conclusion

As IPTV content plays a significant role in appealing to users in a competitive audiovisual market, this study provides insights into its content characteristics based on analyses of a popular web TV service which provides professionally made videos with a free, open-access business model. This study identifies three major IPTV content strategies (i.e., sensationalism, localism, and interactivity) which may influence the adoption of IPTV services and may have significant implications theoretically and for the audiovisual industry. In a nutshell, we found that Razor TV used a lot of sex and celebrity stories, featured flamboyant filming and editing techniques but underutilized interactive features of IPTV.

Sensationalism was a traditional way for some TV producers to attract viewership. IPTV's sensational content should be differentiated from conservative, traditional TV programming and thus win audiences in the fast-changing, highly competitive audiovisual industry. Under light-touch Internet regulations, IPTV content is found to feature different dramatic topics and pictures and use more diverse and intense tabloid packaging and vivid storytelling techniques in order to appeal to online viewers. Content analysis showed IPTV's sensationalism to be different from traditional TV content in that it used sex and celebrity dramatic content. Because mainstream media in Singapore seldom used sex-related topics and pictures, due to strict censorship and conservative culture, sexual content could not be found in mass media. To differentiate programming from traditional TV, this web TV effectively used sensationalism (i.e., sex-related topics and celebrity stories) as one key content characteristic to attract viewers' attention. Moreover, an array of packaging and storytelling techniques were employed in both news-oriented and entertainment-oriented videos. These made this web TV more vivid, hip, and appealing to young audiences. In comparison, web TV's entertainment videos were more sensational than its news content as

they used more dramatic subject matter, tabloid packing, and vivid storytelling techniques in general.

Web TV's content strategy reflected a trend toward localism in the selection of geographically and culturally proximate stories. A heavy dose of local content was considered a remedy to boost newspapers' circulations and online news' readership as well as to sustain local media businesses (Torosyan & Munro, 2010). In this web TV case, the findings showed heavy reliance on local content, which might have led to its popularity among Singaporean audiences. RazorTV's geographic footprint covered primarily local happenings and presented international content through local perspectives. The findings in this study showed the significance of localism in online videos' content strategies regardless of viewership across geographical and cultural boundaries.

Interactivity, the key characteristic which differentiates IPTV from traditional TV, was documented in the viewing of on-demand web videos, rating and commenting, as well as virally sharing videos via social media. RazorTV used user-to-user, user-to-document, and user-to-system interactions, but user-to-document (i.e., searching, watching, rating, or commenting on web videos) was most dominant. Viewers tended to rate videos without commenting on them on the main website. Generally speaking, interactive features in this case were underutilized to create two-way interactivity between users and producers as well as among user communities. Since IPTV services target young audiences, the implication is that it should employ creative and innovative social media marketing techniques rather than just announcing updates and redistributing new videos. Because technological interactivity is the basis for developing a higher level of behavioral interactivity and improving users' perceptions of the online audiovisual services, it is crucial for IPTV operators to not only offer interactive features but also develop strategies to harness two-way interactions and to engage viewers to participate in content discussions and viral video sharing via the website or

its social media. These may improve (potential) users' positive perceptions of the

interactivity of IPTV and thus increase viewership, brand preference, or user loyalty.

Overall, this exploratory study, in spite of its limited generalizability, finds that higher

levels of sensationalism, localism, and interactivity are the keys to producing and promoting

compelling professionally made IPTV content in a free, open access business model.

Although this is a case study analyzing a popular web TV service's content and interactive

features, the findings add to the understanding of online videos' content characteristics and

strategies, providing useful information for industry players working in emerging but

competitive audiovisual businesses.

Methodologically, it is one of the few studies which develop new measurements of

sensationalism, localism, and interactivity to systematically analyze the audiovisual content

of interactive digital media (IDM). These measurements pertinent to IDM content were

developed based on previous theoretical concepts on sensationalism, localism, and

interactivity. For example, "Sex" and "celebrity," two new sub-codes were added to the

dramatic picture code and some irrelevant sub-codes were removed from dramatic subject

matter and dramatic picture, a new code "inserted content" was added to tabloid packaging,

and verbal and non-verbal emotions were coded as vivid storytelling. This study also

measured localism in aspects of "geographical location" and "cultural proximity." in addition

to proposing codes for technological and behavior interactivity of the IDM website and its

social media. For future studies, the measurements can be further improved. Moreover, larger

scale cross-country IPTV content analysis can be conducted to examine similarities and

differences along the three identified dimensions.

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Table 1. Dramatic Subject Matter

	News (n=78)	Entertainment (n=70)	Overall (n=148)	χ^2 (df = 1)	*P*
Justice & Police**	9 (11.5%)	0 (0.0%)	9 (6.1%)	8.600	0.003
Violence/Molestation/Riot/War	3 (3.8%)	1 (1.4%)	4 (2.7%)	0.820	0.365
Theft/Fraud/Other malpractice	1 (1.3%)	0 (0.0%)	1 (0.7%)	0.904	0.342
Extremism	0 (0.0%)	0 (0.0%)	0 (0.0%)	---	----
Unnatural death	2 (2.6%)	0 (0.0%)	2 (1.4%)	1.819	0.177
Accident/Disaster	2 (2.6%)	0 (0.0%)	2 (1.4%)	1.819	0.177
Sex	14 (17.9%)	22 (31.4%)	36 (24.3%)	3.645	0.056
Drugs	0 (0.0%)	0 (0.0%)	0 (0.0%)	---	----
Celebrity***	5 (6.4%)	39 (55.7%)	44 (29.7%)	42.927	0.001
Scandals	0 (0.0%)	1 (1.4%)	1 (0.7%)	1.122	0.290

Note: *p < .05, **p < .01, ***p < .001

Table 2. Dramatic Picture and Dramatic Sound

	News (n=78)	Entertainment (n=70)	Overall (n=148)	t	p
	Mean (*SD*)	Mean (*SD*)	Mean (*SD*)	(df = 146)	
Violence/Riot/War	0.03 (0.23)	0.01 (0.12)	0.02 (1.80)	.375	0.708
Accident/Disaster	0.32 (1.59)	0 (0.00)	0.17 (1.16)	1.685	0.094
Physical trauma	0.00 (0.00)	0.14 (0.12)	0.01 (0.08)	-1.056	0.293
Death	0.21 (1.51)	0.00 (0.00)	0.12 (1.09)	1.139	0.257
Sex*	0.85 (2.72)	2.56 (5.66)	1.66 (4.43)	-2.380	0.019
Entertainment***	0.03 (0.23)	4.63 (7.86)	2.20 (5.86)	-5.171	0.000
Dramatic Sound					
Dramatic sound***	0.13 (0.41)	0.79 (1.48)	0.44 (1.11)	-3.762	0.000

Note: *p < .05, **p < .01, ***p < .001

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Table 3. Tabloid Packaging

	News (n=78)	Entertainment (n=70)	Overall (n=148)	*t*	*p*
	Mean (*SD*)	*Mean* (*SD*)	*Mean* (*SD*)	(df = 146)	
Dramatic Filming					
Unconventional Movement*	0.42 (0.86)	0.93 (2.03)	0.66 (1.55)	-2.007	0.047
Unconventional Perspective	1.89 (2.40)	2.50 (3.88)	2.18 (3.19)	-1.173	0.243
Close-ups	4.06 (4.82)	3.14 (3.63)	3.63 (4.31)	1.301	0.195
POV Shots	0.06 (0.29)	0.04 (0.20)	0.05 (0.26)	.505	0.615
Dramatic Editing					
Transitional Effect**	6.50 (10.31)	2.67 (3.49)	4.69 (8.07)	2.957	0.004
Non-transitional Effect***	1.92 (2.48)	5.13 (5.66)	3.44 (4.56)	-4.543	0.000
Inserted Content					
Inserted Video***	0.22 (0.62)	1.46 (1.89)	0.80 (1.51)	-5.468	0.000
Inserted Music***	0.58 (0.78)	1.36 (1.56)	0.95 (1.27)	-3.904	0.000
Inserted Sound Effect	0.24 (0.81)	0.46 (1.06)	0.35 (0.94)	-1.387	0.168

Note: *p < .05, **p < .01, ***p < .001

Table 4. Vivid Storytelling

	News (n=78)	Entertainment (n=70)	Overall (n=148)	*t*	*p*
	Mean (*SD)*	*Mean* (*SD)*	*Mean* (*SD)*	(df = 146)	
Layperson speaking	1.51 (3.53)	1.51 (4.39)	1.51 (3.94)	1.556	0.122
Personalization	3.21 (3.51)	2.44 (2.23)	2.85 (2.99)	-.002	0.998
Verbal emotion***	0.01 (0.11)	0.46 (0.93)	0.22 (0.68)	-4.197	0.000
Non-verbal emotion***	0.01 (0.11)	0.80 (1.50)	0.39 (1.10)	-4.623	0.000

Note: *p < .05, **p < .01, ***p < .001

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Table 5. Localism

Category	News (n=78)	Entertainment (n=70)	Overall (N=148)	χ^2 (df = 1)	P
Geographical location					
Happened in SG	63 (80.8%)	39 (55.7%)	102 (68.9%)	10.811	0.003
Cultural proximity					
Culturally Proximite foreign stories	9 (11.5%)	18 (25.7%)	27 (18.2%)	4.971	0.026

Note: Not all foreign stories are culturally promixate.

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Table 6. Interactivity

	News (n=78)	Entertainment (n=70)	Overall (n=148)	Statistics	df	*P*
IPTV website						
Average views	1696.45	1893.05	1789.43	$t = -.473$	146	0.637
No. of rating	9.82	7.20	8.58	$t = .996$	146	0.321
Redistribution						
Facebook	19 (24.4%)	9 (12.9%)	28 (18.9%)	$\chi^2 = 3.182$	1	0.074
*Twitter***	37 (47.4%)	14 (20.0%)	51 (34.5%)	$\chi^2 = 12.296$	1	0.001
YouTube	0 (0.0%)	2 (2.9%)	2 (1.4%)	$\chi^2 = 2.259$	1	0.133

Note: *p < .05, **p < .01, ***p < .001