

Section 2 – Audience and Users

This section is dedicated to exploring the expectations and consumption behaviors of potential audiences for the video content produced by the CoB and CATS.

The goal is to document current expectations as well as explore which social trends are like to impact on future media consumption behavior in this space.

This section reviews a selection of relevant academic work and pertinent journalism. It also evaluates audience/user feedback gathered through a dedicated survey administered specifically for this report.

Video Services User Survey

A survey was specifically created for this report in order to gather feedback from local consumers of PEG content. The full survey questionnaire, summary statistics as well as the complete set of unedited responses, including partial responses, are available in the appendix of this document.

Background and Survey Process

The “Video Services User Survey” was created in late February 2010 with input and advice from representatives of the CoB, CATS and MCPL. The survey was administered electronically through www.surveymonkey.com between March 12th and April 5th 2010, using an account provided by the CoB. The survey was also available, upon request, in paper form. However, no paper copies were requested.

The survey contained a combination of 50 multiple choice and open-ended questions including demographic questions.

Limitations of Method

Due to time and budget constraints the survey **did not use a randomized sample** and is therefore statistically not predictive of the over all consumer population for PEG content in the Bloomington area. The survey was self-selecting and mainly promoted through the CoB Website (bloomington.in.gov) as well as the CATS website (catstv.net) and through the PEG channels operated by CATS. This therefore places obvious limitations on the predictive value of the survey results. The survey did not specifically exclude staff members of MCPL, CATS or the CoB.

Thus this survey clearly uses nonprobabilistic sampling and confidence intervals are not specifically calculated for the relevant responses. In the context of a heavily biased sample this might otherwise give the impression of predictive power (of the findings) that cannot be justified.

Nonetheless, it was deemed important to gather feedback from current users of local PEG services to enhance the insights for this report with input from the public.

The results and summary statistics included in the appendix also contain partial/incomplete submissions by respondents that did not finish the survey. Since the goal was to gather as much feedback as possible these responses have been preserved. When results are analyzed against specific demographic characteristics, incomplete submissions are excluded from the analysis, since most demographic questions were mandatory and placed at the end of the survey. Thus some respondent counts for such “cross-tabbed” analysis may vary from those presented in the appendix.

When cross-tabbed analysis is used this will be specifically stated in the text. Charts will generally have the number of responses “n” they are based on indicated as part of their description. For more detailed information on specific results please refer to the relevant survey question in the appendix.

Results and Findings

Out of the 200 respondents that started the survey 158 completed it, resulting in a completion rate of 79%. The following paragraphs present some of the key findings. Please refer to the appendix for the complete set of responses.

Demographics

Out of the 158 participants to complete the survey 58% were female and 42% male.

Ages were relatively evenly distributed within the respondent group as Figure 10 below demonstrates. Note that the range for 20-29 year olds has been broken down into two sub-categories.

Table 5 provides the age distributions within the gender categories. The male portion of the respondent group appears to be biased towards younger age ranges whereas the female respondents are more strongly represented in the 50-64 age bracket.

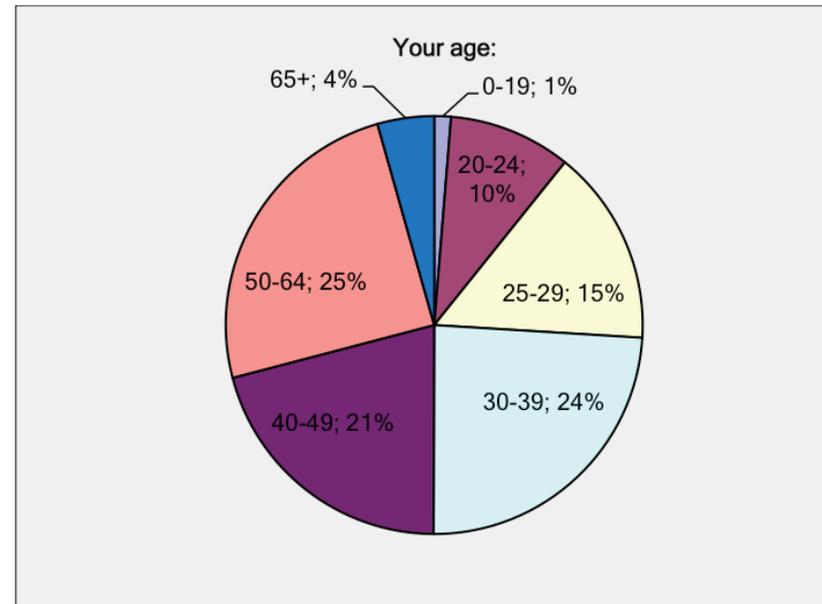


Figure 10 Age Distributions of Survey Respondents (n=158)

76% of all respondents had either a college or graduate degree (35% college, 41% graduate). For reference the “Educational Attainment” data for over 25 year olds (available here from the Census Bureau: <http://www.census.gov/population/www/socdemo/educ-attn.html>) suggests that nationally only 9% of the population hold a master’s degree or doctorate. 19% hold a bachelor’s degree (Based on the “Current Population Survey 2009”). This percentage for undergraduate degrees rises to 30% if associate’s and professional degrees are included.

Only 6.4% of respondents reported “some high school or a high school degree” as the highest level of completed education. 15% reported “some college”. The aforementioned Census Bureau data estimates that 31% of the US population has a high school degree by age 25 as the highest level of educational attainment (if “some high-school” were included this percentage would be even higher).

Your age:	Your gender:		Response Percent	Response Count
	male	female		
0-19	0.0%	2.2%	1.3%	2
20-24	9.1%	9.8%	9.5%	15
25-29	19.7%	12.0%	15.2%	24
30-39	27.3%	21.7%	24.1%	38
40-49	18.2%	22.8%	20.9%	33
50-64	19.7%	28.3%	24.7%	39
65+	6.1%	3.3%	4.4%	7
	66	92	answered question	158
			skipped question	0

Table 5 Age Distribution by Gender

This appears to indicate that this survey unfortunately failed to reach or elicit a sufficient number of responses from this demographic and as such reflects mostly the input from a rather well educated, technologically savvy section of the community. Given the way the survey was promoted (online and on-air) further outreach activities to the less privileged parts of the Bloomington community by CATS and CoB may be useful with a specific focus on uncovering and addressing any potential “digital divide” issues.

Figure 11 provides the income distribution for the survey takers. The US Census Bureau reports the median household income for the State of Indiana as \$47,898 for 2007/2008.

<http://www.census.gov/hhes/www/income/statemedfaminc08.html>

When “unreported” responses are discarded the up to \$49,999 bracket in this survey accounts for 54% of all responses.

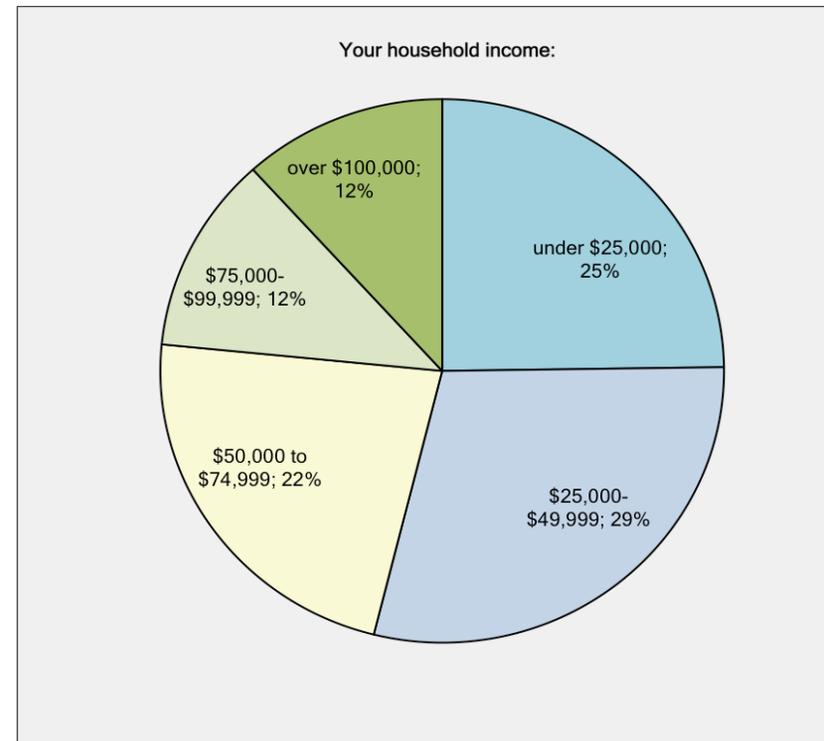


Figure 11 Income Distributions of Survey Respondents Who Reported Their Income Bracket (n=137)

Table 6 generated from national income distribution data (based on the US Census CPS Table HINC-06 for 2008, http://www.census.gov/hhes/www/cpstables/032009/hhinc/new06_00.htm) shows for comparison the respective national income distribution matched to the ranges used by this survey.

under \$25,000	25%
\$25,000-\$49,999	25%
\$50,000 to \$74,999	18%
\$75,000-\$99,999	12%
over \$100,000	20%

Table 6 National Income Distribution Data 2008 (Source: US Census CPS Tables HINC-6, 2008)

This suggests that the respondent population of the “Video Services User Survey” might be more middle-class than the national average but contains fewer high-earning households in the top bracket.

Of those who responded to the question about citizenship 100% (of 155) were American citizens.

All 158 respondents listed English as a language spoken at home with 4.4% also listing Spanish and one listing of Portuguese and Italian accounting for the 1.3% reported under “other”.

78% of respondents reported living in Bloomington, 5% in Ellettsville, 14% in other parts of Monroe county and 3% elsewhere (Brown and Owen County as well as Chicago were reported). 80% reported having lived in Monroe County for 5 years or more.

Their World

Based on all responses most survey participants owned TVs, with 46.5% already owning a high definition capable set (See Figure 12). HD-TV ownership did not appear to be gender dependent across the respondent pool with less than 2% difference between the two groups as Table 7 indicates.

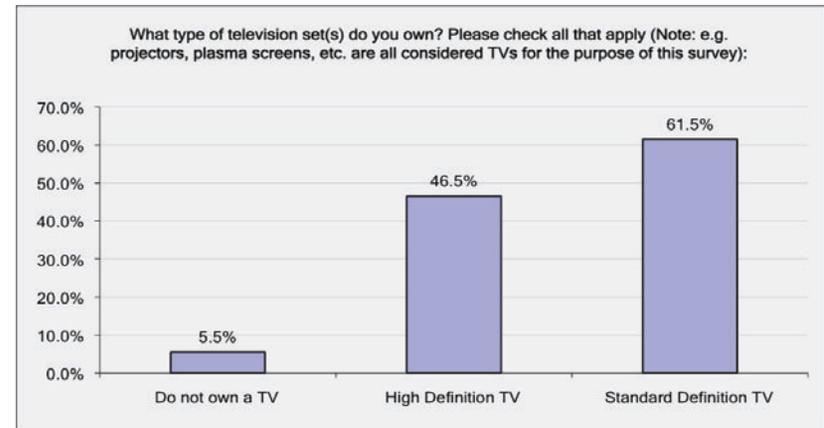


Figure 12 TV Ownership Among Survey Respondents (n=200)

Video Services User Survey		Your gender:		Response Percent	Response Count
What type of television set(s) do you own? Please check all that apply (Note: e.g. projectors, plasma screens, etc. are all considered TVs for the purpose of this survey):	male	female			
Do not own a TV	3.0%	4.3%	3.8%	6	
High Definition TV	48.5%	46.7%	47.5%	75	
Standard Definition TV	57.6%	66.3%	62.7%	99	
				answered question	158
				skipped question	0
answered question	66	92			

Table 7 TV Ownership by Gender

This question, like the following question on computer ownership allowed for non-exclusive choices, which explains why the totals sum up to more than 100%. About 2/3rds of respondents also reported having some form of cable television service, with roughly 1/5th reporting digital video recorder (DVR) ownership.

Only 20% of those who answered the relevant question (194 of 200) were receiving digital TV signals over airwaves. 14% of respondents had direct to home satellite service. 13% had IPTV based television services such as AT&T U-verse.

CATS, the main PEG provider only telecasts its output through the local cable provider Comcast (with some limited carriage on AT&T U-verse), whereas WTIU’s TIU-World has wider availability by also offering digital terrestrial broadcasts in the Bloomington market.

With this in mind, other responses were cross-tabbed against cable tv subscribers. Compared to their peers with cable TV service, non-cable customers were somewhat more attached to their Internet service. Only 15% would give up Internet services over TV services if they had to chose one, compared to 26% of cable customers willing to part with online access. Respondents with no cable TV service were also more likely to consume streamed PEG content online (45% vs. 27% with n=60 vs. n=114 respectively) during the year.

Perhaps not surprisingly for a survey administered online, computer ownership was even higher than TV ownership in absolute numbers with laptops being the most popular type of computer (see Figure 13).

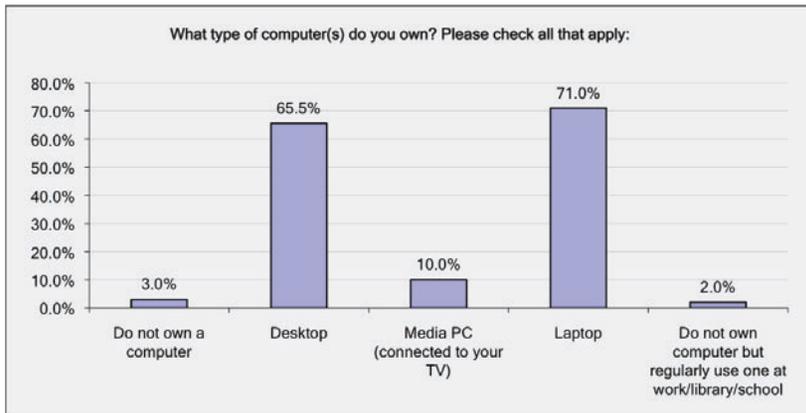


Figure 13 Computer Ownership Among Survey Respondents (n=200)

Gender did not seem to influence the likely hood of laptop or desktop ownership in a significant way, whereas 18.2% of male respondents owned a Media PC vs. only 4.3% of females (see Table 8)

Video Services User Survey
What type of computer(s) do you own? Please check all that apply:

Answer Options	Your gender:		Response Percent	Response Count
	male	female		
Do not own a computer	1.5%	4.3%	3.2%	5
Desktop	69.7%	67.4%	68.4%	108
Media PC (connected to your TV)	18.2%	4.3%	10.1%	16
Laptop	68.2%	67.4%	67.7%	107
Do not own computer but regularly use one at work/library/school	0.0%	3.3%	1.9%	3
			answered question	158
			skipped question	0
answered question		66	92	

Table 8 Computer Ownership by Gender

Roughly a third of respondents had portable video playback device like a smart phone or video capable music player or both (the data implies about 14% own both, the question allowed for multiple choices). Almost half did not own either type of device (see Figure 14).

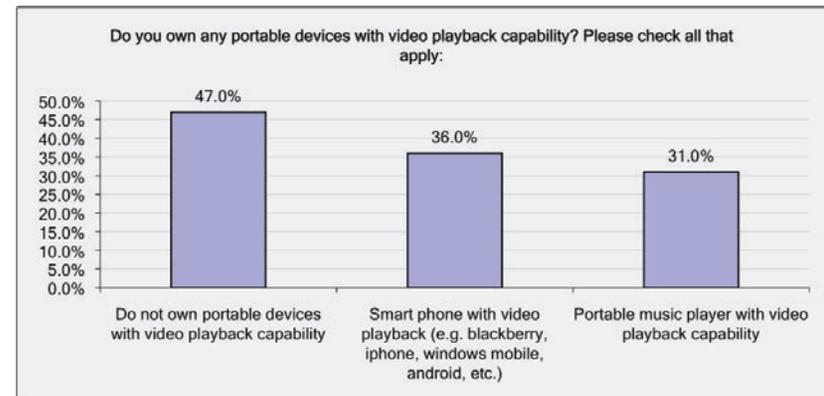


Figure 14 Portable Video Playback Device Ownership (n=200)

Similarly 88.5% percent of respondents reported having broadband Internet access at home vs. 8% with no Internet access. While this

combined with Figure 13 portrays the survey participants as technically well equipped and well connected, it is important to remember that this may not be indicative of consumers of PEG content in general.

Those with broadband access at home were asked to name their provider. Analyzing these responses shows that just over half use Comcast’s cable Internet service and a little over a quarter use AT&T as their provider (mostly ADSL with a small subgroup opting for the faster AT&T U-verse service). The local rural telecom provider Smithville is the third most named provider (roughly 10%). The remaining responses mostly account for independent service providers reselling products of the incumbent carriers and those served through IU in on-campus housing.

In keeping with the earlier observation of a technologically savvy respondent group 80% of those who answered (193 responses) professed to use some type of Internet video service. When asked to further elaborate on the type of services used 152 participants responded while 48 skipped the question.

Among this respondent group streaming services such as “YouTube” were most popular, IPTV offerings like “Hulu” and “Netflix Streaming” came second, whereas “for pay” download services were used by just over half in the respondent group. Figure 15 below provides the percentage breakdowns for the non-exclusive answer choices.

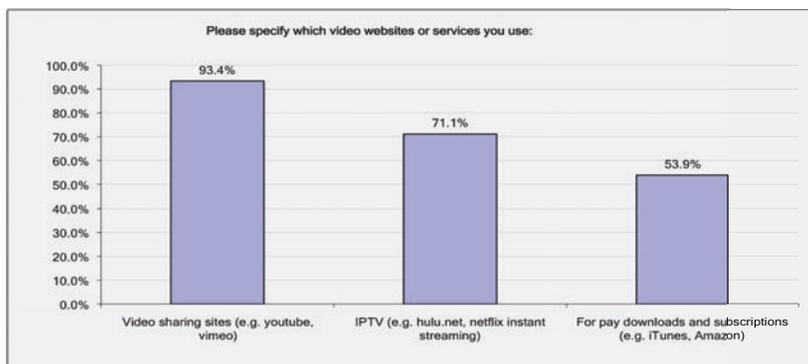


Figure 15 Internet Video Services, Usage by Type (n=152)

189 respondents chose to answer the question “What sources do you use for Bloomington News?”. After allocating the coded responses from the “other” option (where most people mentioned specific websites or services such as Twitter), online sources emerge as the leading news source in the respondent group followed by print media and word of mouth.

Figure 16 provides the percentage breakdown for the answers. Multiple choices were permitted.

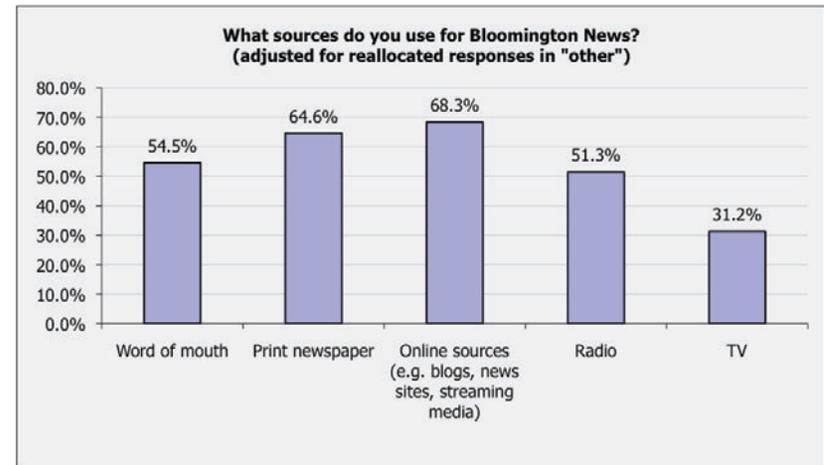


Figure 16 Sources for Bloomington News (n=189)

The line between word of mouth and online may be somewhat blurred, as often social networking sites provide a digital medium for word of mouth type exchanges. The data presentation does not specifically address this ambiguity. Social networking sites listed by respondents in the “other” section were charged to the online rather than word of mouth category for the chart in Figure 16.

PEG Services, Use and Modes of Consumption

The following charts show how respondents reported their PEG consumption behavior as well as what modes of consumption were used (e.g. online vs. cable telecast).

TIU World has the highest regular viewer base among the survey respondents, which may be a result of its wider availability over a range of platforms. The City and Library channels respectively are slightly more popular than the County and general public access channels. Overall the differences in terms of popularity between these four channels are relatively small as Figure 17 indicates. The one channel that was barely watched by the survey respondents (in comparison) was SCOLA International.

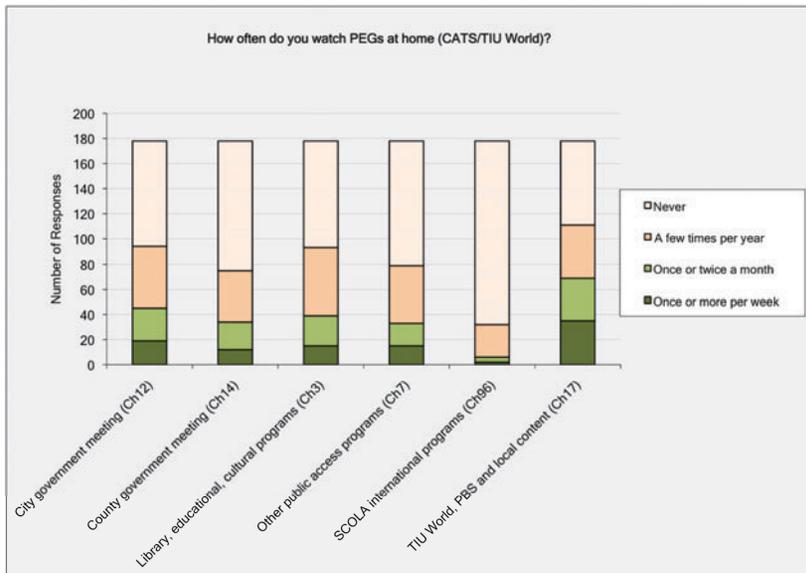


Figure 17 Consumption of PEG Content - Frequency (n=178)

When broken down by gender (see Table 9) there appears to be a slight male bias in viewing preferences for the City and County government channels. Viewing preferences for the Library and educational content of Comcast Channel 3 seem to exhibit a female bias in the respondent population.

The term “viewing preferences” in the context of Table 9 and Table 10 simply describes the aggregate of any reported consumption of a specific channel, be it “a few times a week” or “few times a year”, and

is therefore a relatively coarse measure. A more detailed breakdown of viewing frequencies by gender can be found in the appendix under the section for “Cross Tabs” for the “Video Services User Survey”.

Answer Options	Your gender:		Response Count
	male	female	
City government meeting (Ch12)			
At least a few times per year	63.6%	46.7%	
Never	36.4%	53.3%	
	66	92	158
County government meeting (Ch14)			
At least a few times per year	53.0%	35.9%	
Never	47.0%	64.1%	
	66	92	158
Library, educational, cultural programs (Ch3)			
At least a few times per year	47.0%	56.5%	
Never	53.0%	43.5%	
	66	92	158
Other public access programs (Ch7)			
At least a few times per year	47.0%	46.7%	
Never	53.0%	53.3%	
	66	92	158
SCOLA international programs (Ch96)			
At least a few times per year	24.2%	14.1%	
Never	75.8%	85.9%	
	66	92	158
TIU World, PBS and local content (Ch17)			
At least a few times per year	63.6%	63.0%	
Never	36.4%	37.0%	
	66	92	158
	<i>answered question</i>		158
	<i>skipped question</i>		0

Table 9 PEG Consumption by Gender

The data presented in Table 10 also represents a condensed version of the detailed cross tab data for this survey question included in the appendix. To generate more meaningful sample sizes, “the level of education achieved” has been aggregated into three categories with the data from the comparatively small “other category” discarded.

The bottom of each category contains the actual number of responses recorded. As these questions were not mandatory to complete, Table 12 for example, displays different response counts for each category as some respondents chose to submit incomplete responses.

Please note that as with all other statements made in this survey, the data displayed in these tables is only representative of the self selected

survey population and should not be taken as representative of the wider PEG audience in Bloomington.

Video Services User Survey				
How often do you watch PEGs at home (CATS/TIU World)?				
Answer Options	What is the highest level of education you have completed?			Response Count (excl. "other edu")
	Some High School, or High School Degree, or Some College	College Degree	Graduate Degree	
City government meeting (Ch12)				
At least a few times per year	63.6%	43.6%	57.8%	
Never	36.4%	56.4%	42.2%	
	33	55	64	152
County government meeting (Ch14)				
At least a few times per year	51.5%	30.9%	50.0%	
Never	48.5%	69.1%	50.0%	
	33	55	64	152
Library, educational, cultural programs (Ch3)				
At least a few times per year	57.6%	43.6%	56.3%	
Never	42.4%	56.4%	43.8%	
	33	55	64	152
Other public access programs (Ch7)				
At least a few times per year	48.5%	45.5%	48.4%	
Never	51.5%	54.5%	51.6%	
	33	55	64	152
SCOLA international programs (Ch96)				
At least a few times per year	12.1%	20.0%	20.3%	
Never	87.9%	80.0%	79.7%	
	33	55	64	152
TIU World, PBS and local content (Ch17)				
At least a few times per year	51.5%	67.3%	64.1%	
Never	48.5%	32.7%	35.9%	
	33	55	64	152
	answered question (including "other edu")			157
	skipped question			0

Table 10 PEG Consumption by Level of Education

Not surprisingly Comcast was the most popular means of consumption for PEG content (see Figure 18). Yet both the Internet streaming service and online meeting archive offered by CATS showed detectable levels of (reported) use despite the relatively low level of publicity these services have received in the past.

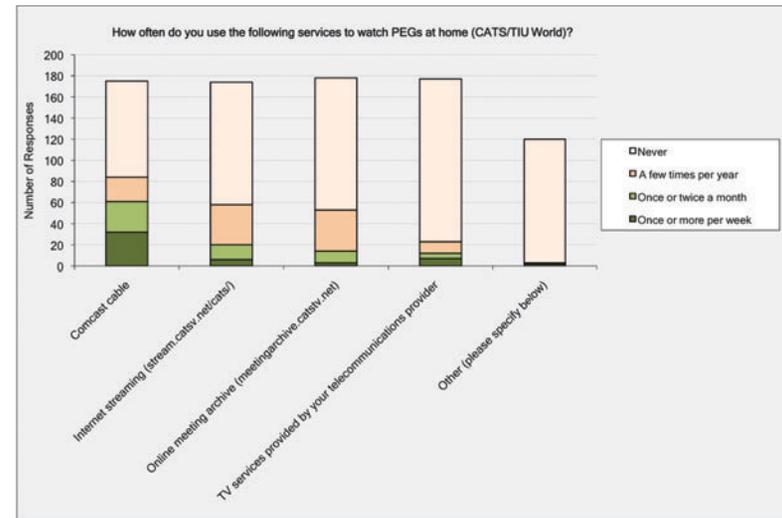


Figure 18 Method of PEG Consumption - Frequency (n=178)

While women represented the larger pool of consumers in absolute numbers (due to the female bias of the respondent population) men seem to be over all more likely to consume PEG content at least a few times a year through the various available methods (cablecast, online, IPTV).

Video Services User Survey				
How often do you use the following services to watch PEGs at home (CATS/TIU World)?				
Answer Options	Your gender:		Response Count	
	male	female		
Comcast cable				
At least a few times per year	54.7%	46.2%		
Never	45.3%	53.8%		
	64	91	155	
Internet streaming (stream.catsv.net/cats/)				
At least a few times per year	37.5%	31.1%		
Never	62.5%	68.9%		
	64	90	154	
Online meeting archive (meetingarchive.catsv.net)				
At least a few times per year	34.8%	28.3%		
Never	65.2%	71.7%		
	66	92	158	
TV services provided by your telecommunications provider (e.g. AT&T U-verse, Smithville S+TV)				
A few times per year	12.1%	12.1%		
Never	87.9%	87.9%		
	66	91	157	
	answered question			158
	skipped question			0

Table 11 Method of Consumption by Gender

Video Services User Survey				
How often do you use the following services to watch PEGs at home (CATS/TIU World)?				
Answer Options	What is the highest level of education you have completed?			Response Count (excl. "other edu")
	Some High School, or High School Degree	College Degree	Graduate Degree	
Comcast cable				
At least a few times per year	40.6%	50.9%	53.2%	
Never	59.4%	49.1%	46.8%	
	32	55	62	149
Internet streaming (stream.cats.net/cats/)				
At least a few times per year	31.3%	29.6%	35.5%	
Never	68.8%	70.4%	64.5%	
	32	54	62	148
Online meeting archive (meetingarchive.catstv.net)				
At least a few times per year	24.2%	29.1%	34.4%	
Never	75.8%	70.9%	65.6%	
	33	55	64	152
TV services provided by your telecommunications provider (e.g. AT&T U-verse, Smithville S+TV)				
At least a few times per year	18.8%	9.1%	12.5%	
Never	81.3%	90.9%	87.5%	
	32	55	64	151
	answered question (including "other edu")			157
	skipped question			0

Table 12 Method of Consumption by Level of Education

Based on the self reported data from the survey higher levels of education seem to also increase the likelihood of PEG consumption through most modes, with the notable exception of IPTV.

Figure 19 and Figure 20 display the reported frequency with which the respondents to the survey reported watching specific City and County originated content / meetings.

Due to the non-predictive nature of these responses in statistical terms, the results reported should not be seen as a vote of popularity by the wider PEG user community but merely a reflection of the specific interests represented within the particular respondent group of this survey.

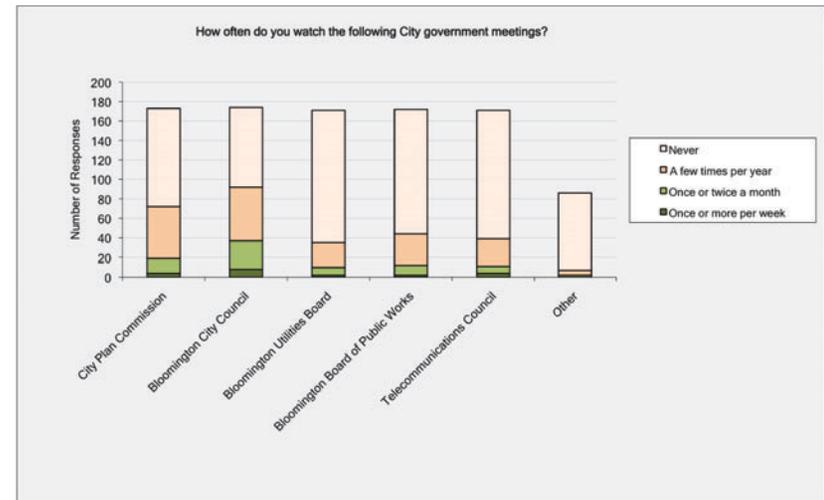


Figure 19 Consumption of City Content - Frequency (n=174)

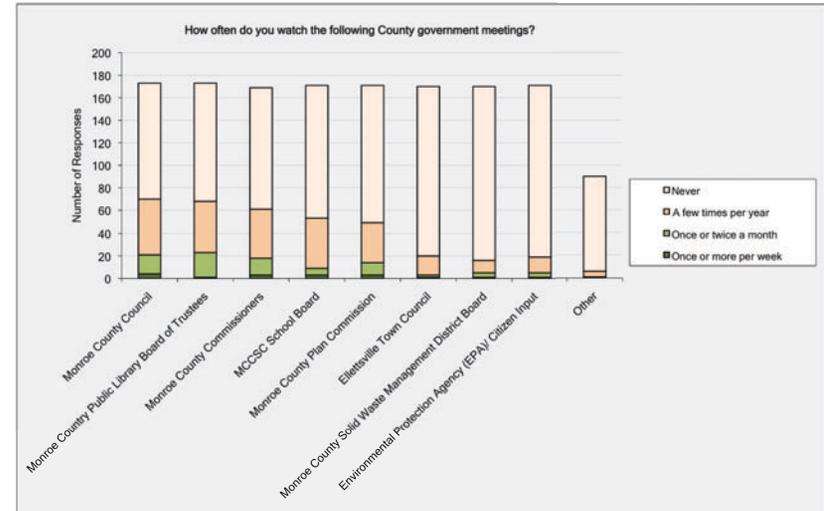


Figure 20 Consumption of County Content - Frequency (n=173)

Figure 21 in conjunction with the expanded feedback received to open-ended questions seems to suggest that at least within the

respondent group of this survey, the Bloomington YouTube channel could benefit from measures that would raise its profile. A number of open-ended responses expressed surprise at its existence.

“I did not know we had a youtube channel! I might start checking that out.” (A survey respondent for question 25)

“More promotion. I didn't know the city even had a youtube page or streaming video on its website. Can't really evaluate it until I've seen it.” (A survey respondent for question 26)

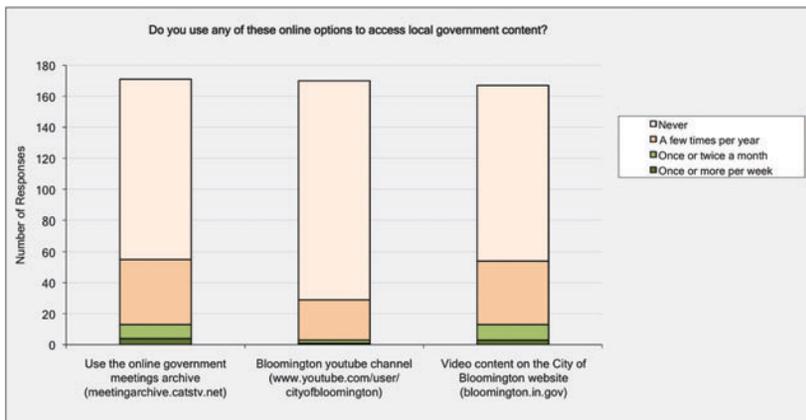


Figure 21 Online PEG Options - Frequency of Use (n=173)

The latter ties into a larger re-occurring theme of an awareness deficit among the respondent population about the full range of services offered as part of the PEG activities in the Bloomington market. This issue will be discussed in more detail further below.

Better Use of Internet Video

Question 26 specifically asked what the CoB could do to take better advantage of Internet video. The responses were coded into the three categories presented in Figure 22. 55% of all respondents felt that awareness-building activities were most important.

“Better advertising -- I did not know about the Bloomington youtube channel.” (A survey respondent for question 26)

“Publicize more.” (A survey respondent for question 26)

“Increase the profile of these services. Didn't know they existed.” (A survey respondent for question 26)

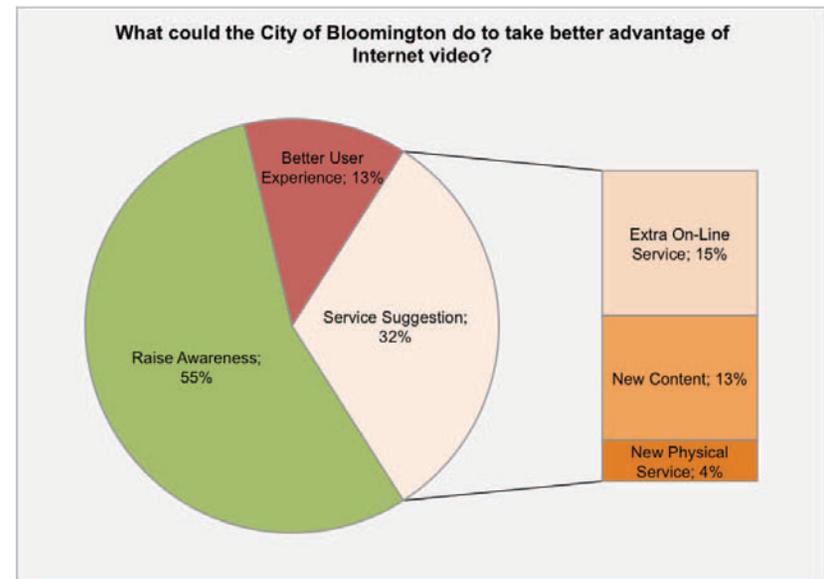


Figure 22 Suggestions for Better Use of Internet Video / Question 26, Coded Responses (n=50)

Other responses focused on usability related issues.

“better interface” (A survey respondent for question 26)

“Provide content that is of interest, allow for indexing so that viewers can find parts of content they want to watch. Higher quality.” (A survey respondent for question 26)

A range of responses was grouped under the category of service suggestions. While some respondents asked for the introduction of physical services such as fiber optic network access most focused on either specific ideas for new content/programs or the expansion of online services offered to facilitate access to PEG resources.

“Multiple topical video podcast series offered through iTunes. Weekly 5-10 minute shows on arts, public works, policy, parks, etc.” (A survey respondent for question 26)

“Twitter feed publishing links to new videos as they are posted. RSS news feeds with videos posted in feeds.” (A survey respondent for question 26)

A lot of the suggestions for extra online services, such as the one in the latter quote displayed above, seemed to lean towards making information about PEG content and its availability accessible in a more convenient way. Combined with the requests for user experience improvements and the general call to raise awareness this seems to indicate that even a technologically savvy respondent group is struggling to fully utilize existing PEG services in the online domain effectively. These findings give additional support to the proposed improvements in terms of promotion and accessibility of online PEG content set forth in sections 1 and 4 of this report.

Attitudes and User Satisfaction

Overall the respondent group expressed high levels of satisfaction with the content on the various PEG channels, with TIU World and Ch12 (City Government Meetings) scoring the highest average rating. SCOLA International scored the lowest. The average scores for each channel derived from a 5-point scale are displayed in Figure 23 below.

When satisfaction ratings are computed as a percentage of those who are either very satisfied or satisfied with the content the differences between the various channels become more pronounced. In this type of analysis often used to gauge sentiment in commercial market research, based on the assumption that only avid supporters are true supporters, SCOLA falls far behind the other channels as Table 13 demonstrates. The table breaks down observations based on

supporters and strong supporters versus those that are very dissatisfied, dissatisfied or indifferent. The top 3 values are highlighted. Notably the number of (very) dissatisfied respondents is generally low for all channels.

	% s vs	% d vd	% d vd i
City Government Meetings (Ch12)	46.5%	3.8%	53.5%
County Government Meeting (Ch14)	36.5%	3.8%	63.5%
Library, educational, cultural programs (Ch3)	40.0%	4.5%	60.0%
Other public access programs (Ch7)	32.5%	3.2%	67.5%
SCOLA International Programs (Ch96)	17.0%	2.0%	83.0%
TIU World (Ch17)	38.9%	1.9%	61.1%
Response Rate	79.5%		

Table 13 Content Satisfaction for PEG Channels by Strength of Support (n=159)

The potentially more controversial content of the general public access channel manages to keep up reasonably well in terms of support levels with the government and library channel, even in this type of analysis.

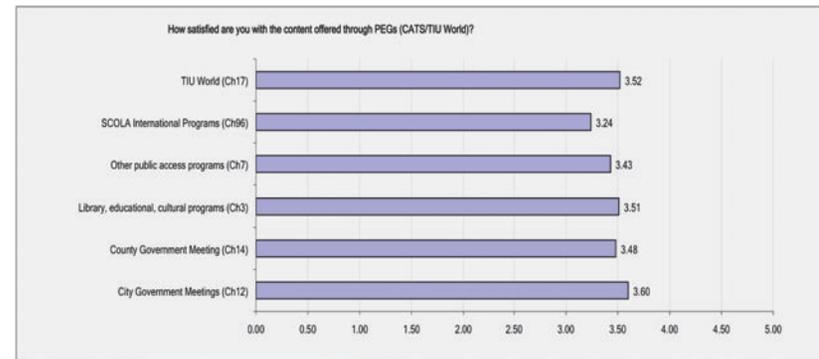


Figure 23 Average User Satisfaction with Content on PEG Channels based on 5-Point Scale (n=159)

These findings seem to align with the earlier observation that this respondent group does not display a particularly high level of consumption of SCOLA content.

However, a direct causal link between satisfaction and level of consumption cannot be established reliably due to the nature of the survey, neither are these findings indicative of viewer sentiment in the Bloomington market as a whole.

As per Figure 24 survey respondents ranked the constitutional protection of free speech on public access TV as highly valuable with an average score of 4.39. This was the highest observed score of any sentiment question using a 5-point scale in this survey. Neutral and comprehensive reporting on government meetings also ranked highly with 4.0. International news ranked lowest with 3.17 in line with earlier observations regarding SCOLA.

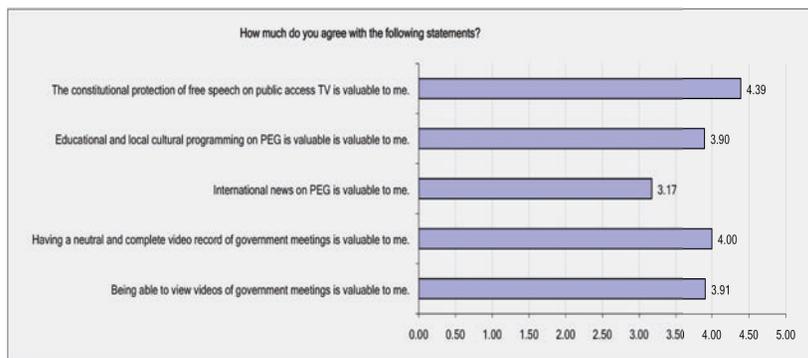


Figure 24 Value of PEG Mission (n=163)

CATS and its importance to the future of the Bloomington community achieved a score of 4.03. However, out of all sentiment questions it had the lowest response rate of only 57.5% (n=115), other 5-point scale questions before and after achieved response counts of 155 to 163 replies.

When asked about their preferred method for receiving PEG content in the future Internet streaming and cable TV ranked highest

with respondents least enthusiastic about mobile/cell phone based delivery. For “on demand” content respondents ranked online access to the historic archive of PEG content reaching back to the 1970s the highest.

When participants were polled about what types of programming should be added to the PEG channel lineup, 28 responses containing 37 suggestions were submitted. Coverage of local events (24%) and local news (22%) were most frequently mentioned followed by arts coverage (16%). The remaining suggestions covered a wide array of topics from religious programming to animal behavior.

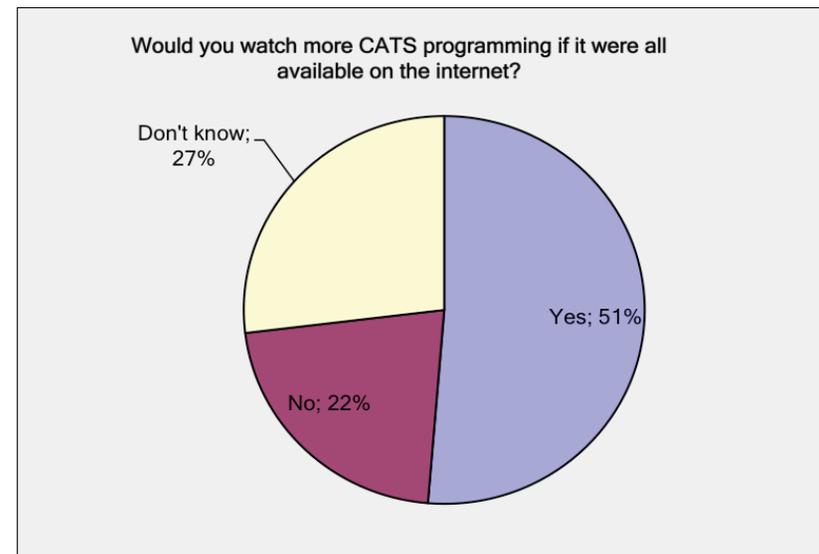


Figure 25 Reason for Potentially Increased Consumption of CATS Content - Availability Online (n=156)

According to Figure 25 just over half of the respondents claimed they would watch more CATS programming if it were all available on the Internet, yet only 15% rated HD (high definition) content as a reason for increasing their PEG consumption (see Figure 26).

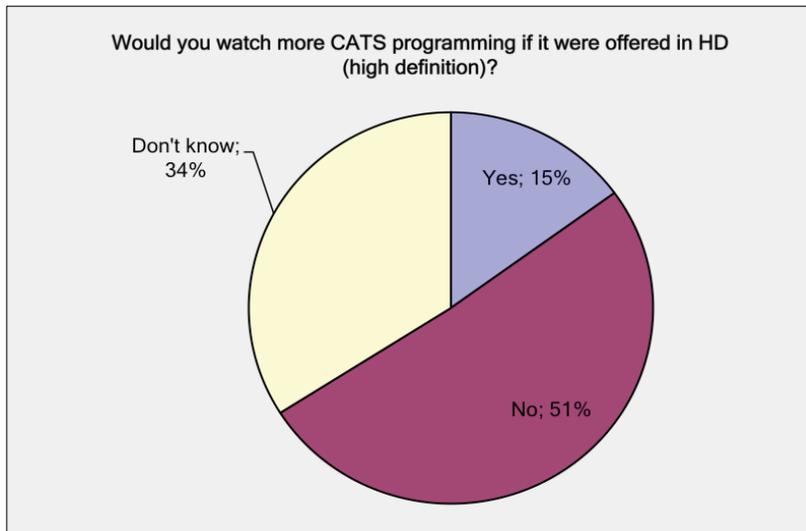


Figure 26 Reason for Potentially Increase Consumption of CATS Content - Availability in High Definition (n=153)

Opposition to a rental fee for a digital converter to receive the output of CATS was very strong with 82% unwilling to pay such a fee (see Figure 27).

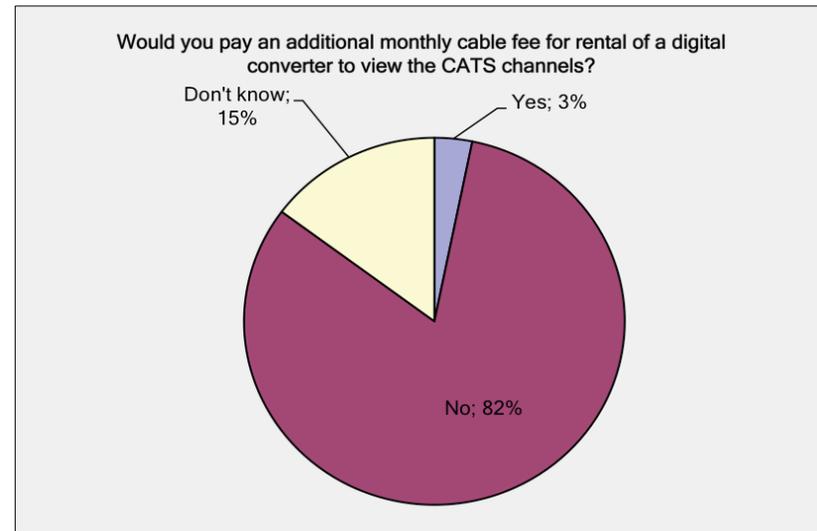


Figure 27 Willingness to Pay Rental Fee for Digital Converter (n=155)

As Table 14 demonstrates this rejection cuts across all income brackets. It might thus be as much an expression of ideological belief as of economical interest. It should be noted that the survey did not specify “how much” the additional rental fee for such a converter would be.

Answer Options	Your household income:					Response Percent	Response Count
	under \$25,000	\$25,000-\$49,999	\$50,000 to \$74,999	\$75,000-\$99,999	over \$100,000		
Yes	5.9%	2.6%	3.4%	6.7%	0.0%	3.8%	5
No	79.4%	86.8%	75.9%	80.0%	81.3%	81.1%	107
Don't know	14.7%	10.5%	20.7%	13.3%	18.8%	15.2%	20
answered question							132
skipped question							5
answered question	34	38	29	15	16		

Table 14 Opposition to Digital Converter Rental by Income Bracket

42 respondents offered further thoughts regarding video services in Bloomington with a large number *praising* or expressing gratitude for the availability of PEG content. Some were concerned about the fact that most PEG content was tied to Comcast Cable and were asking for CATS’s channels to be made available on other *delivery platforms* like satellite or digital terrestrial services.

Feedback covered requests to *continue the existing services* and *other* issues such as support for the Google’s fiber optic pilot, improved awareness and program ideas. The remaining feedback covered specific *complaints* such as the incomplete carriage of PEG content on AT&T’s U-verse service or the lack of electronic program guide information for PEG channels on Comcast.

“I pay PEG fees to ATT and cannot receive Monroe County Programing. I am not happy with this arrangement. I have contacted ATT without any progress.” (A survey respondent for question 42)

“I wish that the library would make comcast list the programs on the tv schedule. It would make it easier to record coounty and city meetings using the comcast dvr.” (A survey respondent for question 42)

Figure 28 provides the percentages for each type of feedback provided by respondents to question 42. Off-topic responses and replies such as “none” or “don’t know” where discarded from this analysis. The complete list of unedited responses is included with the full survey results in the appendix.

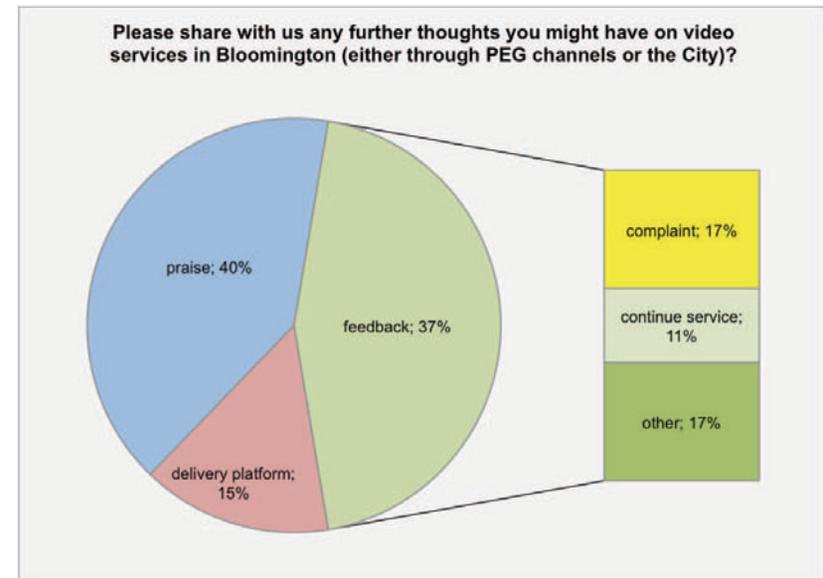


Figure 28 Further Feedback by Type on Video Services in Bloomington (n=47*)

*Some of the 42 respondents raised multiple issues in their responses.

PEG Production

Awareness of the free access to production facilities and relevant training for public TV productions provided by CATS was 63% in the respondent group for this survey (158 responses).

While 50% of respondents had at least produced a home video for themselves or friends only 25% had produced content for the web. 15% had created a public access program at least once (see Figure 29).

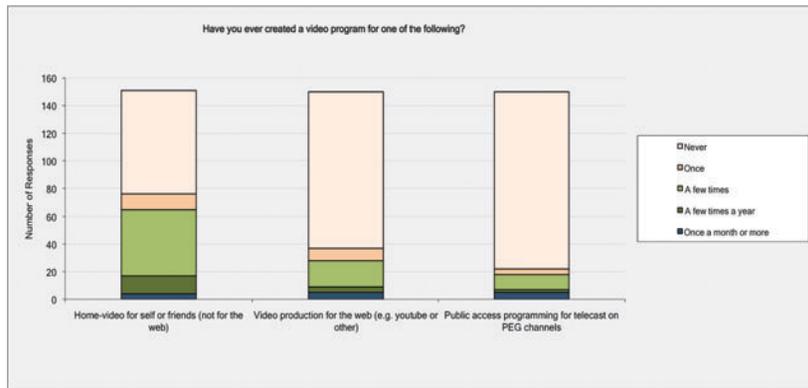


Figure 29 Content Production Habits of Respondents (n=152)

When asked about their future plans 49% said they were either very likely or somewhat likely to produce a home video, 35% expressed this sentiment for online video and 25% for public access programming respectively.

Figure 30, based on survey question 39, thus seems to indicate the existence of some untapped potential in the respondent population. The share of those with some aspirations to be involved in future public access productions exceeds the number of existing (past) producers.

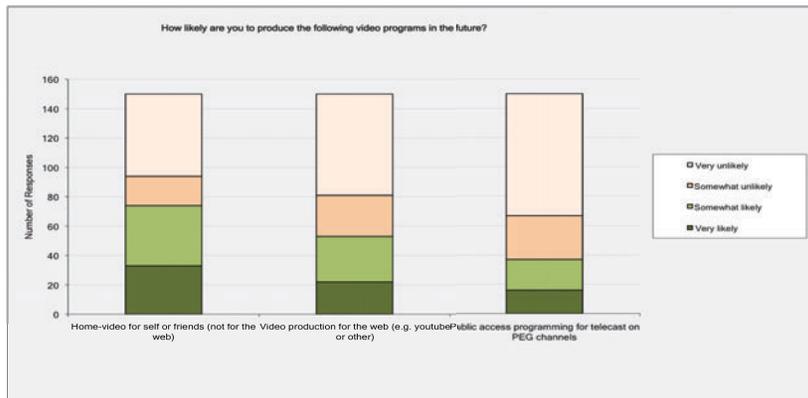


Figure 30 Future Plans to Produce Content (n=150)

When asked to elaborate on their reasons for their answer choice to question 39 (Future video production plans), 1/3 of respondents (n=50) offered an explanation. 50% cited lack of interest (or said they did not know why), 27% blamed lack of time, while 12% offered more or less concrete program ideas they might consider working on.

Further Considerations

It has been pointed out throughout the presentation of this survey that the sample it is based on is not necessarily representative of the actual PEG audience composition in Bloomington.

Thus interpreting these results within the context of this report requires a high degree of caution. However, from a perspective of individual digital capabilities this participant group may well provide a glimpse at the future of the general population. The survey respondents over all were computerized and connected to the Net at broadband speeds.

Despite the relatively low level of promotion for Internet based PEG content there was measurable use / consumption already present within the respondent group. However, if intentions stated in the open ended questions of the survey were truthful, then this online consumption should increase further after this survey, as many participants were previously unaware of the full range of PEG content available online.

As the more Internet-connected generations age, slowly displacing those without deep immersion in the “digital lifestyle”, online access to recordings of government meetings dramatically increases in relevance. The philosophical and empirical arguments for transparency are compelling (see (Holzner and Holzner 2006) for a detailed discussion on the subject) and online access to impartial and complete records of government meetings thus provides a powerful tool to facilitate it. Transparency through access to these sources may yet emerge as one of the most powerful justifications for sustaining a PEG service (See “Video Services User Survey”, questions 28 and 29 or Figure 24 for supporting evidence).

Online access to government content frees this kind of transparency from the confines of a specific media ecosystems tied to particular

providers such as Comcast. It opens up the content to a much broader audience. It also enhances the usability of such content by removing the “by appointment” nature of broadcasts/telecasts and replacing it with on-demand consumption, to suit individual lifestyles. Both factors will reduce the barriers to access and engagement and thus strengthen transparency through broader citizen engagement – theoretically.

The risk of inadvertently creating a new kind of digital divide in the local community is substantial.

If even the well-connected PEG enthusiasts who decided to take part in this survey lack full awareness of the current online services an expansion or shift to a more comprehensive offering in the future may fail to reach and thus exclude sections of Bloomington’s society from this process. Older generations and those at the bottom end of the socio-economical spectrum may both experience the online expansion as an erection of new barriers to access.

Obviously citizen participation cannot be mandated but only encouraged. Thus lack of interest by individual citizens notwithstanding, MCPL, CATS and CoB should co-ordinate their efforts to increase (teach) “digital literacy” among these demographics and promote opportunities for access to online content for those that cannot afford or do not understand the required technology (yet).

As the biased makeup of the self-selected respondent sample for this survey seems to demonstrate, promoting such efforts must go beyond electronic media channels to be effective at reaching these “off-line” demographics. It may require onsite activities at MCPL, mailing campaigns (potentially through City Utility Bills) and the involvement of local schools.

The quantitative analysis of the paragraphs above has inevitably abstracted away some of the qualitative nuances contained in the open ended responses. Interested parties will find the unedited responses, particularly to questions 26, 39, and 42, in the appendix a fascinating collection of opinions well worth reading.

Conclusion

Self-selection, especially when as in the case of this survey no particular incentive/reward for completing the questionnaire is offered, is likely to attract a very polarized group of contributors. Those that are highly in favor or enthusiastic about the service and those that harbor strong resentment or genuine complaints are assumed to be generally more motivated to complete such a survey (for more information on coverage issues in self-selecting surveys see: (Yeong-Hyeon and Fesenmaier 2004), and (Couper 2000)).

The number of complaints voiced in this survey was very low. Most of which were about secondary issues such as availability (or lack thereof) of content or program guide information. The actual content itself however was not attacked. The level of praise expressed for CATS’s work was notable. This suggests that survey participants were largely enthusiastic about PEG activities.

Despite the rising importance of Internet technologies, Cable TV, the medium it owes its existence and funding to, is still the dominant delivery platform for PEG content among the survey participants. Yet the desire for expanding access to PEG content beyond the closed ecosystem of cable television has been a re-occurring concern voiced in many survey responses. Some consider online access as an extension or substitute for cable TV coverage yet most value the customization and more seamless flow of information this non-linear delivery platform affords.

Against this backdrop the awareness issues raised by a substantial group of respondents about online activities weigh even heavier. Enthusiasts commonly would be expected to display higher levels of awareness of the full range of PEG activities, compared to the general public, yet this does not always appear to be the case as the survey results seem to suggest.

When interpreting the suggestions for improvement, it appears that survey participants are struggling to use the current online services effectively. Usability issues, information flow issues, such as automated notification of new content, and simple lack of awareness all play their part.

These wider human factor issues are most suitable for generalization as they are not dependent on the personal interests of the respondent group. A site that is hard to use and does not deliver convenient access to information/updates will experience similar, if not worse, issues when used by the a wider more diverse audience. Thus future improvements in these areas, from better web design to RSS feeds, are most likely to yield tangible benefits.

Delivery to mobile devices did not seem a priority for this respondent group and may relate to the dominant long-form nature of most material available online today such as government meetings. Against the backdrop of this rejection by an enthusiast group the argument for standards compliant websites, as a no-cost extension to mobile delivery, in preference over dedicated purpose built smart phone applications, is strong.

SCOLA International ranked as the least popular and least watched PEG channel among the survey participants. As emphasized previously this may not be a generalizable sentiment for the Bloomington market. For the same reasons new program suggestions such as an increase in local news or event coverage or additional arts programming should not be taken as a general audience vote. What this diversity of requests suggests is that a properly constructed short survey on the subject, using random sampling, might yield valuable insights for developing additional PEG services.

The suggestions provided by the respondent group in this survey seem to reflect the taste of a well-educated middle class constituent. While some bias towards higher levels of education seem plausible in a university town such as Bloomington the divergence from the national average is significant in this case.

Approximately 75% of those that made program suggestions (n=24, arguably a very small sample) and 76% of all respondents (n=157) had a college or graduate degree vs. 37% for the national average based on “Educational Attainment” data for over 25 year olds (see Census Bureau: <http://www.census.gov/population/www/socdemo/educ-attn.html>).

If survey results were mistaken for a representative range of suggestions, this could crowd out alternative content relevant to broader audiences beyond this demographic. During survey development a proposal to include amateur cage fights as alternative content suggestions in the survey caused considerable consternation among parts of the advisory panel. Yet truly local material not covered by commercial media from sporting events such as high school basketball to a demolition derby or county fare all carry opportunity for audience expansion, possibly even syndication. Ultimately only a properly sampled survey will provide guidance on how to allocate production resources for this type of material most effectively.

Of course another way to promote more diversity on PEG channels is by increasing the diversity and amount of direct contributions by the public. The survey suggests that even within its specific sample there is untapped potential. The concerns voiced by some “would be” contributors about lack of time might be addressed through encouraging shorter productions or intensive, group based, weekend workshops.

While the rejection of digital converter rental fees seems to indicate a threat to the PEG audience numbers in the event of a forced migration of PEG channels to a digital tier, this issue might in fact be less threatening than survey responses suggest. Such a migration would most likely occur under a full decommissioning of remaining analogue infrastructure and thus affect all analogue cable channels to an equal extent. The issue thus becomes a customer retention problem for the provider Comcast rather than a viewer retention issue for PEG providers.

PEG providers and the CoB have gained insights into the wishes and hopes of their most enthusiastic supporters, a group that, if tendered to with in reasons, can serve as evangelists for the service to the rest of Bloomington. The survey has also highlighted general human factors and awareness issues that transcend beyond demographic boundaries and warrant future attention.

This survey also offers a rough approximation of future changes in audience composition with regards to digital capabilities and may serve as an additional source of input to general Internet Video strategies.

However the most fundamental insight, one the survey did not overtly poll for, appears to be uncertainty about the level of audience engagement with PEG services beyond the well educated middle class of this community. This raises political and social questions that lie beyond the scope of this report; nevertheless it does create an opportunity for further research by others to benefit this community.

Brief Literature Review

"Public engagement is at the heart of public access, and proponents see it as a place where a local community can gather to learn how to communicate and share ideas"

Mike Rosen-Molina, December 17, 2008,
<http://www.pbs.org/mediashift/2008/12/public-access-tv-fights-for-relevance-in-the-youtube-age352.html>

Introduction

This literature review is adapted to the needs of this consulting report. Its aim is to capture current discourse and introduce further reading pertinent to issues surrounding PEG and public media transformation, audience engagement and management practice.

It seems that much of the cutting edge discourse surrounding PEG and public media practice has migrated into the un-reviewed space of blogs and aggregator sites. Please consider the three examples below as a starting point for further investigation:

- <http://www.pbs.org/mediashift/>
- <http://cmediachange.net/blog/category/publishing/>
- <http://www.newpublicmedia.org/blog>

Thus overall this literature review is a collection of topical articles, papers and books to inspire further thinking and investigation, rather than an exhaustive treatise of prior academic work.

The research for this piece unearthed surprisingly little recent (2008-2010) scholarly work on the interactions between municipalities and their PEG ecosystems. Slightly more work is available documenting the media activities and modes of audience engagement of larger, often national public service broadcasters. Papers published in journals for

the business domain seem to also stay clear of the aforementioned subject area. This review therefore also includes references to business books, some more scholarly than others, with the aim of including some transferable management concepts for the reader's benefit.

The Value and Effect of Local Diversity

A recent article published in the Journal of Industrial Economics demonstrated that diversity in the beer industry had declined inversely to the television penetration during the second half of the 20th century. *"The results indicate that the industrial organization of media markets can affect the structure of markets for local products"* according to the author, Lisa M. George.

The fundamental argument behind this article seems that economies of scale in reaching audiences favor large national brands over local ones serving small local/regional consumer groups. When extrapolated to current trends the author concludes *"The results here suggest that these lower costs will further enable the spread of national over local brands. As internet penetration spreads internationally, it is perhaps likely that large international brands will see new marketing advantages over smaller national ones."* (George 2009)

While the brewing industry may at first glance be far removed from PEG and public media activities, the value of localized media diversity becomes more apparent if "brewing" is replaced with "political discourse" or "cultural identity". The ability of TV to act as a *"gathering place"* illuminates this issue from a different angle. *"Television functions as a social context, providing sensory communion and social congregation; it also functions as a center of meaning, helping a society define "us" and "them," conferring value on persons and objects..."* (Adams 1992) The absence of local TV removes this platform and dissolves local identity in a homogenous national or international context.

Access to local media and places to interact are described as pre-conditions for the concept of *"Communicative Cities"* outlined by Gumpert and Drucker. The authors assert, *"The quality of*

communication within cities makes a significant difference to the overall quality of human life” and “There are numerous perspectives through which the economic, social and manufacturing pulse of the urban landscape can be viewed, but communication transcends and is the primary operational lens through which to understand, analyze and evaluate the city”. The article presents a framework against which to assess the communicative qualities of a city and proposes a set of “fixed” and “semi-fixed” features to “operationalize and facilitate communicative cities” (Gumpert and Drucker 2008).

A well-run multi platform PEG and local public media operation can play an important role in carrying Gumpert and Drucker’s idea as a provider of interaction and communication spaces.

Another paper investigating the impact of international media production activity on Vancouver (BC) reiterates this point in a similar fashion, “...this case study illustrates the contradictions in global media practices and finds that often the most local, and overlooked, community media outlets are best able to reflect the sociocultural specificities of life in the globalizing metropolis” (Tinic 2006).

Evolving Consumption Patterns and Modes

So these three different perspectives all confer unique value upon local (PEG) TV content. It may be that the relatively fragmented cable industry of the past provided a favorable climate to sustain local PEG channels. With the drive for consolidation in an industry, which in the 1970s was considered a problematic business proposition by all but a few, and national IPTV based platforms like U-verse or Hulu.com gaining ground, such local voices may yet again come under (economic) pressure.

For an interesting historic yet almost visionary perspective on the cable industry see “A reexamination of the prophecy of doom for cable television” (Crandall and Fray 1974). The bright future the authors predicted based on rising penetration rates, rising subscriber revenue and take-up of premium services did come true and along with it supported PEG operations throughout many franchise areas.

Today surveys are indicating the first hints of behavioral shifts that may once again give rise to a pessimistic outlook, perhaps more well-founded this time, for the long-term future of the existing cable television model. The consumer electronics site Retrevo published a survey this April, which it states was conducted by an independent panel among 1000 individuals distributed across demographic and geographic ranges. The survey found that already 51% of all individuals consumed “some” TV online and 23% of “under 25s” claimed to watch “most” of their TV online. When asked what it would take to watch “all” TV shows online 20% named HDTV, 19% Premium Shows and 15% Live Sports as the deciding factor (Retrevo.com 2010).

“New” IPTV services with premium network TV content like Hulu.com might be the new catalyst for more widespread behavioral changes like this. On the other hand “old” IPTV, in the classic context of TV services provided over a dedicated private IP network by a telecom provider, such as AT&T U-verse may be facing similar challenges akin to Cable in the future. “Even with the interactive services based upon advanced IP technology, it is not structurally different from conventional television as the medium is organized following the TV model. In addition to competition, a contradiction between the open internet and walled-garden IPTV will pose critical challenges to the medium.” (Kim 2009)

At least for now, based on franchise revenue figures presented elsewhere in this report, the IPTV provider (AT&T) U-verse is still growing its subscriber base in the Bloomington market quite steadily. The wider question remains whether the Retrevo numbers are either indicative of a displacement process ahead or whether the increasing level of overall media consumption will create room for the co-existence of classic TV models and new online platforms.

This theory, that individuals will consume “more of everything” is shared by a “Special Report On Television”, recently published in the Economist. The magazine quotes a recent survey by the Kaiser Family Foundation. “Today, 8-18 year-olds devote an average of 7 hours and 38 minutes (7:38) to using entertainment media across a typical day (more than 53 hours a week). And because they spend so much of that time ‘media multitasking’ (using more than one medium at a time),

they actually manage to pack a total of 10 hours and 45 minutes (10:45) worth of media content into those 7½ hours”(Rideout V. J. 2010).

Two years earlier the same author asserted that new media were “*not displacing*” older media but “*used in concert*” with them. The authors also noted that “*Media exposure is positively related to risk-taking behaviors and is negatively related to personal adjustment and school performance*” (Roberts and Foehr 2008).

The same article in the Economist also asserts, “*When it comes to mobilizing mass audience, nothing can touch television*”. This year’s (2010) 106 million viewer strong Super Bowl audience is named as supporting evidence with the additional note that this audience spent more time watching this one game than the entire nation spent on YouTube for that particular month. See “*Changing the Channel*” (Economist 2010).

The Economist adds another interesting perspective with regards to television consumption, highlighting the distinctive gap between self-reported and actual behavior in front of the TV screen. A Nielson sourced chart from 2008 shows a vast discrepancy between actual TV consumption and self-reported consumption. With the former exceeding the latter by almost 100 minutes per day. The same article also refers to research by Sarah Pearson, which presents similar discrepancies in terms of PVR use vs. live viewing. Person’s work also indicates that TV consumption is still often a communal activity with program choices being a group compromise (Pearson 2009). See “*The lazy medium*” (Economist 2010).

The Transformation(s) of Public Service Broadcasters

So taking into account the notions of increased consumption across media platforms and the potential ongoing viability of linear TV in the mid-term, where does this place public media organizations? “*As we move towards a post-broadcasting environment, it [the public service broadcaster] must think of itself as a full-service public communicator*” (Raboy 2008).

“Digital media online potentially serves two broad purposes for PSBs: extending the scope for production through both supplementary and dedicated online content; and offering new kinds of relationships with the audience” (Debrett 2009). According to this author who surveyed six public service broadcasters (PSBs) in four English speaking countries, PSBs are encountering both new challenges and opportunities as they confront increasingly fragmented audiences in the digital marketplace: “*As they reconfigure themselves as media content companies, public service broadcasters enter new territory with regard to their audience, their content, their relations with producers and their status in the marketplace, invoking more exacting requirements for governance and accountability, and new commercial enemies*” (Debrett 2009).

Debrett observes PSB websites provide depth and diverse background material as opposed to commercial television sites that he describes as having a “*distinctly promotional flavor*”.

While none of the articles surveyed question the validity of online expansion as a means for extending or continuing audience engagement, some question the quality of execution observed so far. Based on European examples Trappel finds the results of “*achieved media output*” disappointing and calls for a formal extension of the public service remit to online media (Trappel 2008). What seems transferable to the local media market in the US is the notion of defining a virtually platform agnostic service mandate. Bardoel et al lament that their subject of study, the Dutch PSB, lacks focus on the “*present and future media use*” of its audience in its digital strategy and seems preoccupied with technological and business issues (Bardoel and d’Haenens 2008). Both articles present examples to learn from and highlight potential pitfalls/mistakes to avoid.

Technology in itself is “*an accelerator, not a creator of momentum*”, when used by the successful companies (Collins 2001, p.144-162). The successful companies Jim Collin’s describes in his book “*From Good To Great*” used “*carefully selected*” technologies to support the long-term objectives of the company. Collins also states (backed up by substantial empirical evidence) “*How a company reacts to technological change is a good indicator of its inner drive for greatness*

versus mediocrity. Great companies respond with thoughtfulness and creativity, driven by a compulsion to turn unrealized potential into results; mediocre companies react and lurch about, motivated by fear of being left behind” (Collins 2001, p.162).

The author of another paper speaks to the opportunities and challenges inherent in online expansion using radio podcasting as her field of study. *“Podcasting ...is particularly appealing to technologically savvy youth audiences whom public-service broadcasters (PSBers) traditionally have difficulty attracting. Yet podcasting simultaneously creates highly fragmented audiences with doubtful brand loyalty”*. She then concludes, *“The future of PSBers’ exciting initial forays into podcasting will thus depend upon how well PSBers can harness and reconcile these divergent participatory and professional media traditions”* (Murray 2009).

Audience Interactions and Contributions

Murray titled her paper *“Servicing ‘self scheduling consumers’”* which implies a much more proactive and engaged audience interacting with content. The step from engaged consumer to active contributor of content can be fluid and Flinn presents an interesting variation on this theme. His paper describes trends in community archives involving content and commentary contribution as well as the community sourced enhancement of collection descriptions. This in part also challenges notions of the *“expert voice”* and professional authority according to Flinn. See (Flinn 2010).

This trend is not confined to archives but also presents part of the perspective on citizen journalism. Which Goode reminds us is *“(1) not an exclusively online phenomenon, (2) not confined to explicitly ‘alternative’ news sources, and (3) includes ‘metajournalism’ as well as the practices of journalism itself”*. He calls for the focus of a future research agenda to encompass *“structure and social capital”, “online editors and moderators”* and *“code”*. The latter is described by the author as *“digital substrate underpinning these developments”*. Goode refers to the impact technologies, usability and presentation aspects can have on the communication process (Goode 2009).

As the local PEG and public media activities evolve, following this debate may prove beneficial to key actors to help maintain positive conditions in this ecosystem. Goode provides a host of explorative examples to start this process in his paper.

Social and Political Platforms and Dimensions

Another paper with instructional value in this regard is Kenix’s work on the perceptions and uses of the Internet by nonprofit organizations. The author describes how organizations frequently only used the medium for *“one-way information dissemination”* and lacked strategy and training. Kenix concludes *“Indeed, nonprofits appear to engage the internet without any vision of a public at all”* and sees a *“self-reflexive mirrored theory of communication”* at work (Kenix 2008). While her work is ethnographic in nature, Kenix provides a body of real world examples that subtly highlight common characteristics of suboptimal solutions in this space.

One common assertion used to support PEG activities is their function as facilitators of transparency and citizen involvement.

However, this notion is not shared by all, at least not with regards to television in general, as the following quote from the abstract of Roderick Hart’s paper *“Easy Citizenship, Television’s Curious Legacy”* shows. *“Television has reduced the burdens of citizenship for the average American and that that reduction is dangerous. Television does all of this by overwhelming viewers with the sights and sounds of governmental life and by supersaturating them with political information. All too often, however, this tumult creates in viewers a sense of activity rather than genuine civic involvement. In addition, television constantly tells the story of specific persons in specific situations, thereby producing a kind of highly individuated, cameo politics that distracts viewers from common problems and public possibilities. Television does this work, and much more, in a highly entertaining fashion and is often genuinely informative. But television also produces an overwhelming passivity in viewers even while making them feel politically involved”* (Hart 1996).

If the author's reasoning has merit today, can the interactivity of electronic media truly overcome this passivity?

Proulx studies grassroots activities in Canada that he sees as a "bottom-up" model of "networks of 'information sharing societies'". He places this view in opposition to the classic notion of a global information society (Proulx 2009). Proulx suggests that "the construction of such a new public space around technology could form part of an empowerment of citizens", yet provides no evidence of this occurring on a larger scale outside domain specific interest groups.

When moving from the not-for-profit sector to government, Scott's study of municipal websites in the US, published in 2006, describes widespread use of sites for service provision and transparency purposes. The author states that the lower cost of providing "information, communication and transaction services" online makes "local government much more accessible and accountable to interested users". Yet it seems the municipalities surveyed had not yet expanded into the domain of facilitation and thus were yet to evolve beyond the realm of transactional exchange with citizens: "However, the study found no applications designed to facilitate networking or offline meetings of interest groups, and only two sites facilitated online policy forums or discussion lists" (Scott 2006).

In contrast a recent study on behalf of the Corporation for Public Broadcasting (CPB) found that "Except for a few, stations neither have extensive digital efforts nor allocate a significant amount of their budgets to digital initiatives". The same study also found that "Direction and guidance in all areas of digital deployment is scarce for most stations, including business models, marketing, and strategy" (Gupta-Consulting 2009).

The expansion into the aforementioned facilitation and direct political exchange with the public might serve as a catalyst for societal transformations that reverse the passivity or spectator status lamented by Roderick Hart. Changes in user behavior and consumption style are essential for the success of any online initiative, even those of a transactional nature. "But the most innovative quality of disintermediation changes is that civil society actors who know their

own situations very well are able to autonomously sift and select what they may receive from government. Disintermediation is essentially accomplished only when citizens or consumers of public services change their behaviors in line with facilitating shifts by government agencies and officials". (Dunleavy et al. 2006)

Behavioral change will be favorably impacted by suitable incentives as Dunleavy et al demonstrate in their analysis of the introduction and adoption of an RFID card based payment system by London Transport.

Very Brief Thoughts on Leading Change

Finding the right incentives in the PEG context to drive stakeholder collaboration and further audience engagement will inevitably require some trial and error. This report, with its four sections, seeks to help create a starting position and enhanced understand from which to embark on this project. As pointed out in the introduction to this document, the CoB is in a position to exercise leadership and drive progress.

Leadership in this context cannot be substituted for simply mandating change. The leader will require a positive vision and a sense of direction and actively engage others to willingly follow. This requires outwardly displayed passion as much as some understanding of the fundamental context (Kouzes and Posner 2008, Ch 2).

This indicates that a specific person or small group may need to drive, and evangelize this process. Collaboration built on mutual trust with openness to new ideas and constituents empowered to solve problems have been shown to outperform micromanaged and rigid implementation frameworks. The authors advocate the importance of providing choices, fostering commitment through accountability, while building latitude into job functions as crucial tools to achieve the desired performance (Kouzes and Posner 2008, Ch 9-10). Many of the leadership concepts presented by Kouzes and Posner are highly transferable to reaching the goals set forth by this report and to effectively implementing its recommendations.

The “HERO – highly empowered resourceful operative” concept described by Bernoff and Schadler in their recent article “Empowered” provides another angle on the issues above. *“For higher-level managers, the key is not just encouragement but visibility. Simply urging people to be more creative doesn’t work. Instead, identify the kinds of solutions you’re looking for—outside as well as inside your company”* (Bernoff 2010). A key component of the concept according to the authors is that *“HEROes agree to innovate within a safe framework”*, bypassing the general structures of an organization would result in “rogue” and dangerous behavior. Bernoff and Schadler see management’s role to *“encourage innovation and manage risk”* and IT is to *“to support and scale up HERO projects”*.

However, while cooperative and empowered team members are important leadership also requires occasional sternness by those in charge to protect the goals and align effort as necessary. Abraham Maslow’s likens this to a father who, based on his superior understanding and maturity, has to say “no” to his children at times. Knowing that being unpopular in the short term is a worthwhile sacrifice for the sake of the overall long-term goals. Maslow demands that one should *“still be able to see the objective requirements of the situation and to respond to them rather than to these interpersonal satisfaction for the moment”* (Maslow 1965, p.132).

Conclusion

Local TV stations with actual local programming such as PEG channels provide an important platform for the expression of the local cultural identity. They form part of a “healthy” communications infrastructure contributing positively to the quality of life and diversity of a community.

In the public broadcasting arena the use of online services is still in its infancy and most stations are looking for guidance and lack coherent strategies. A commonly accepted and proven code of best practice has yet to emerge.

Municipal governments have been more skilled at leveraging this new communication medium and appear further along the experience

curve. However, commonly online presence still lacks facilitated spaces for discussion. While local government has yet to enter this domain as decisively as it has in the transactional and informational context, PEG providers have a heritage in facilitating public discourse that should place them in an advantaged position to leapfrog their government partners in this application. PEG operators and public media organizations can become “multi platform communicators” and facilitators of discourse and the expression of ideas. In this role they can include, engage and educate *majorities* that the self-service nature of conventional video sharing sites fails to reach effectively.

This transformation cannot be achieving alone and will require partnerships across domains and organizations between PEG operators, public media organizations and municipalities to fully realize the potential benefits. Forming alliances and sharing of resources also mean shared risks and a richer more integrated experience for audiences (Adapted from business context, see (Cairncross 2001, p.151)).

Coordinating such cross-functional teams across a number of organizations will pose new management challenges for those tasked with leading the effort. Unclear accountability, political play and “analysis paralysis” are only some of the potential perils ahead. Effective communication, trust building and empowerment, but also decisive action and a clear, passionately pursued vision will be required.

Finally, as the research for this review seems to indicate, learning should not be confined to articles, books and reports. All actors in the PEG ecosystem could benefit from engaging their peers across the Nation both through official bodies like the ACM but also through more informal discussion spaces like relevant blogs (see sample links at the beginning of this review). This exchange with likeminded individuals could inject fresh ideas into local planning that would have otherwise been missed and help everyone learn from each other’s successes and failures.

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BROADCASTING, CHANGING AUDIENCES AND HCI (Reproduced paper from May 2007)

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The following paper is reproduced with the permission of the co-authors and was originally provided to CATS in May 2007 as part of a classroom project for INFO-1561 (Spring Semester 2007, Informatics Human Computer Interaction Design Master's Program). The paper is reproduced in unaltered form since its key points are still valid.

Overview

This document aims to provide a synthesized overview of prevailing scholarly and expert opinion in areas of the broadcast sector. The main focus will be on the technological and sociological evolution of the content creation and distribution paradigms as well as likely future developments of the media consumption habits of current and future audiences.

For this purpose we are drawing on work published through the ACM (Association of Computing Machinery) and other scholarly sources as well as white papers produced by industry leading consultancy firms and key manufacturers. We feel the professional nature of our community partner project (To provide a long range technology strategy for local public access TV) demands an integrated approach to defining the problem space by drawing on a diverse variety of sources. To structure and express prevailing streams of thought is the goal of this document.

Production and Content

While in our professional opinion the introduction of non-linear and collaborative production environments in the broadcast industry has undoubtedly added to the immediacy and fast turnaround cycles of news programming production, cost still remains relatively high. Projects such as the wired tele-journalist "that reports and responds

live to audience wishes" (1) as proposed may provide a solution to this issue for local markets; Already the concept of interactivity emerges.

Public access TV was once considered the birthplace of interactivity and audience participation, often relying on such basic interaction as touch-tone telephone input (2) While the late 90's and early years of the new millennium saw pilots with often complex interactive applications, recent years have seen a downscaling of ambitions and a move towards "discount interactive TV" where evolution rather than revolution seems to be the goal (3).

Jensen also asserts that there is in fact demand for "non-complex, lazy interactivity" by TV consumers adding another angle to the "lean forward/lean backward" debate. While the broadcast sector has so far only seen limited adoption of interactivity, early thoughts about potential video on demand (4) have matured into full-scale IPTV deployments (see e.g. "homechoice", UK) built on standards based technology (5). With the IPTV paradigm new challenges for content creation emerge with the aim to capitalize on the technology's capabilities beyond merely being an instant access video rental facility.

But with great opportunities also comes the risk of getting it really wrong (6). But features aside, content still remains king and this is the area where many offerings today are still lacking due to ineffective content acquisition deals (6).

Platforms

In 1997 (7) we saw great potential for new options for enhanced services enabled by the introduction of digital terrestrial broadcasting (mainly for high definition TV) in the US. Expectations were high and services were expected to be as transformative as the unseating of the "cable moguls by the World Wide Web" and its democratization of interactive content. Years on, in our professional opinion as a consultant for this industry sector this has not yet occurred. We see much rather former enemies cozy up in the name of leveraging platform synergies.

"Convergence has been a telecom and media industry theme for 10 years" but now the competition for the consumer has begun in earnest and recent alliances and acquisitions powerfully underpin this assertion (8).

Moving beyond broadcasting, 3.5G will become a media rich content delivery platform (9), yet there is still not enough understanding of the HCI (Human Computer Interaction) elements involved in delivering content effectively over these networks (10). Some however, see a more diverse ecosystem of converged WIFI and Cellular networks with seamlessly roaming devices (11). This will also continue the trend of cross platform alliances and mergers (internet / telecom and media companies); All of which is driven by the need "to capture and retain the attention of consumers and advertisers" (8) (12).

In other areas of media distribution the identification of the community's cable and cable-related needs and interests is also critical to the franchise renewal process (13).

But as bandwidth and connectivity patterns improve IPTV and web offerings often blend and awareness of both domains can enable low-cost or niche deployments (14) by small providers for specific purposes.

Consumers and Accessibility

Homes are changing. Entertainment is becoming more private (15) and as such personal interaction will benefit from more effective recommendations for program options (16). Yet mundane tasks could be made more enjoyable (15). At the same time technical literacy still shows room for improvement in many areas. Popular education fused with participatory research could address that need (17). The success of social networks has shifted the definition of community from the spatial to the social context (18), yet often at the cost of still excluding large sections of society, such as the growing numbers of elderly, and often less technically literate, citizens (19). It is here where Campbell's methodology stands to potentially have a large impact. Yet social networks also seem to be intertwined with cause and effect of an

increasingly isolationistic culture of "stay at home" individuals that sees users partially immersed in many social circles without providing direct human interaction (18).

Particularly in Europe research and legislative intervention in the field of accessibility has been a concern for all distribution channels from TV, telecom or the Web of the converged world, yet few research has concerned itself with the human centric question of whether new services actually add value to "people with functional restrictions". (20)

Media Consumption Trends

Social

Although it may not be clear how exactly media consumption will end up ten years down the road from now, there is plenty of supporting evidence that the way consumers receive their media, infotainment, etc... is migrating away from the current model of linear television and newspapers (21) (22).

Most studies emphasize the shrinking gap between Internet and television usage rather than a large decrease in television usage alone (23).

This effect is even more prevalent when looking at changing media consumption behavior between generations (22).

Studies from Pew Research Center in 2004 classify consumers into two types of media users: "regulars" and "grazers". Regulars refer to people who use linear TV and traditional ways of receiving information and specified times. "Grazers" refers to people that gather their news and information on demand and at no specific predetermined time of the day. It is interesting to note that the age group from 18 to 30 is predominantly composed of "grazers". This gives insight into what the core audience will be like in ten years (24).

The concept of the grazer empowered by non-linear (and often) on-demand access to media. As such it is an expression of the digital

world of distribution, previously impossible in an economy driven by the scarcity of physical shelf space (25); Freed from the “tyranny of the physical” (25) audiences, no matter how geographically dispersed in the global village they may be, become viable consumers of niche content. This makes producing for non-mainstream applications a viable proposition.

Local community networking complements the global-village paradigm of the Internet. Participants in a community network are far more visible and individuated to one another. Their computer-mediated interactions are tightly coupled with actions and events in their personal lives (26). The purpose of community networking is to facilitate information dissemination, discussion, and joint activity pertaining to municipal government, public schools, civic groups, local events, community issues and concerns, and regional economic development and social services.

The concept of local communities taking control of their own information technology resonates with democratic ideals. These are local infrastructures, so they attract only local resources. They tend to focus on survival and development, not on analysis and evaluation (27).

Context awareness will place users in a new dimension: they are not merely consumers but actors, who interact in a real context maintaining a variety of interrelationships with other users through multiple communication systems and challenging traditional media production modes (28).

Reality-TV programs show another phenomenon this time between producer and audience; how TV opens doors to members of the public who are interested in having a primary role. Democratization is taking place backstage too, as TV develops mechanisms to increase viewer participation and feedback. These trends can be characterized as the evolution of viewers to participants (29).

Educational

In parenting children’s access to the media, television is the most supervised medium, followed by music. Video games and the Internet

are least likely to be supervised (30). The decline in TV viewing and increase in music listening associated with the onset of adolescence is examined in terms of the changing social ecology of adolescents’ daily lives. The partial shift from television to music during adolescence represents a shift from a medium that reinforces parental values to one that reinforces peer values and speaks to adolescent developmental tasks (31).

Technological

This new and younger generation is very familiar with new technologies and in particular “web 2.0” and “social networking” technologies like “blogs”, dating websites, “podcasts”, instant messaging, etc... (32)The new technology is encouraging and allowing users to become the producer and director of her own programs. Unlike traditional linear television, these new technologies allow consumers to communicate, interact and exchange ideas (33).

There is a trend emerging where consumers desire to have as much control over their television as possible with technology like PVRs (Personal Video Recorders) (34) (35) gaining ground in the living room. Studies show that consumers still watch a lot of television, however they have developed a strong enthusiasm and passion for on-demand media (36).

In some instances “linear TV consumption almost stopped” when a PVR was introduced to the household as Brown observed in his 2006 study (37). The same study also demonstrates that households, where Internet based video downloads almost completely replace TV consumption, are already a reality.

The users of the new technologies are involved in a growing niche market that commonly holds the desire for TV and/or media everywhere (38).

As mentioned above IPTV technology holds the promise of unlocking the power of the aforementioned long-tail and offers cost-effective distribution of content to niche audiences even in the relative short term as Deloitte (39) suggest in their 2007 report. Even traditional broadcasters are beginning to embrace niche content for local

audiences as the investment into such Internet driven on-demand content in the UK demonstrates (40).

The Backend

Content Management (CM) is the key to cost effective deployment or repurposing of media assets over a range of delivery platforms (41) and as such is continuing to gain importance; Be it to power front-end features like personalized media alerts to mobile consumers (42) or a more personalized IPTV experience (43).

The effective cataloging and retrieval of large amounts of media assets is business critical (44). The significance of this technology can be gauged by the wide variety of contenders in the CM market from Apple to Incentra to graphics vendor nVidia. As the Global Society for Asset management notes, aided by SMPTE efforts, the industry is increasingly moving "towards standard platforms and protocols" (19)helping interoperability.

The academic sector in the mean time has been researching into suitable models of abstraction to refine the management and description of digital repositories (45) such as the 5S model (Streams, structures, spaces, scenarios, and societies) as well as explored new ways of visualizing the intrinsically complex data structures (46) embodied in such repositories.

Government and Politics

Amidst this option for rich personalized content, consumer expectations will also change towards government. The new connectedness can empower greater information about ballots and proposals as well as open up new avenues for dialogue between the electorate (47) and its leaders. This new connectedness has also given rise to new types of intellectuals some say (48), providing a public outlet for opinions often in opposition to the political establishment. This builds upon the role that public access TV has often carried during the late 70's and 80's (49).

Citizens participate in politics because they have the resources to participate, because they are engaged in the political process, and because they are mobilized to participate. If changes in the flow of political information increase citizens' resources available for participating, engagement in the political process, or mobilization of others to participate, then we would expect participation to increase as a result of the Internet.

From broadcast to netcast, information and Communications Technologies (ICT) offer vital opportunities for bringing about a fundamental change to the workings of traditional democratic systems. By enabling and facilitating new forms of interaction within parliaments, and via citizen engagement in the political process, ICTs can help meet the challenge of creating more representative and efficient democratic systems (50).

While open discourse in virtual communities is often seen as beneficial, an exercise in democratic principles, there is a risk of self-reinforcing debating enclaves forming with views drifting to more extreme positions (51).

Conclusion

The future seems to lie with multi-platform repurposing of video assets, paired with varying degrees of interactivity tailored to the platform specific constraints and user expectations. The ability to integrate one asset into combined offerings on multiple platforms will be powered by increasingly sophisticated and standards based Media Asset Management (MAM) solutions. Government and private sector alike will leverage these powers for their own ends, with all efforts geared towards maximizing the attention share with the increasingly media and technology savvy consumers and co-contributors. Yet amidst all this frenzied content exchange basic usability and accessibility aspects seem still somewhat neglected.

Competency in this field seems an opportunity for differentiation as media consumption preferences and patterns are changing, within generations and across generation boundaries. To adjust and respond

to such trends in a crowded market space is in of the key challenges facing CATS.

While the “Long Tail” (25) may have become a much-overused marketing phrase in “technotopian” circles, the evidence does seem to suggest that there is a considerable value in providing access to a rich (back) catalogue of content to satisfy the desires of previously unknown and often highly dispersed niche audiences. At the same time traditional linear broadcast channels are increasingly transitioning into becoming feeder pipes for PVR driven, often faster than real-time (37) content consumption; To be visible to PVR users and thus to feature in the collaborative filtering algorithms of PVRs like TIVO (52) is essential.

We feel that Public access TV may be losing some of its power as a platform for medial self expression to sites like YouTube (53) but it has the opportunity to gain new relevance as an aggregator of quality (independent) local content feeding both PVR and Internet based (niche) audiences.

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Partnerships