

Ohio TV Web Site Study

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Abstract: In a study of Ohio TV station web sites in 2002, sites that were ran by web site design companies used the highest number of enhanced TV features. Columbus is the TV market with the most sophisticated TV sites. It scored highest in the total number of features, and specifically in the fan-based feature category, the game-based feature category and the interactive/TV commerce feature category. Cincinnati and Youngstown scored highest in the information-based feature category. Cleveland scored highest in the game-based feature category. The most popular individual enhanced TV feature being used by Ohio TV stations is TV schedule. Stations also differ by their network affiliation. ABC affiliates scored highest in the number of enhanced TV features used. But different networks showed different emphasis in each category of feature. Generally, Ohio TV stations used their site primarily for on-air promotion. Not many of them were using the site as a profit center for e-commerce. WHIZ and WHIO were the stations with the largest number of total enhanced TV features used.

Background

Americans' favorite pastime of television viewing is no longer confined to viewing programs with a TV set. Because of increased Internet penetration, now over 60 million households in the U.S. can "enhance" their TV watching experience through the World Wide Web. For example, more than eight million computer users have logged on to ABC Network's web site for the online play-along game of *Who Wants to be a Millionaire* (Gruenwedel, 2000). Media entertainment web sites are at the top of the must-visit lists according to trade reports of web traffic, capturing more than 72% of web visitors (Pastore, 2001).

There are two approaches for TV companies to build presences on the Web: 1) Generate brand loyalty as a part of the brand franchise by promoting on-air programs, and 2) Establish a profitable Internet service (Klein & Masiel, 2001). Hit shows such as ABC's *Who wants to be a Millionaire*, CBS's *Survivor*, and Fox's *American Idol* all benefited from a strong web site support in arousing and sustaining viewers' interest in the programs. Enhanced TV features such as daily update, votes, contests, and play-along games continuously create consumers' excitement on the program and encourage their participation. ESPN and *The Weather Channel* are making good profits out of their web sites' highly popular news and information services on sports and weather respectively (Klein & Masiel, 2001).

Better quality pictures and additional information and entertainment services related to the TV programs can enhance TV viewers' experience of television programs. Unlike high definition television (HDTV) that seeks to improve viewers' experience by a higher resolution and a wider TV screen, enhanced TV is the use of Internet features to enrich the viewing experience of TV programs for television viewers. Enhanced TV is a part of the broader concept of Advanced Television that encompasses both Interactive television and enhanced TV features on TV web sites.

The TV industry sees TV web sites and their associated enhanced TV features as a great opportunity to offer new entertainment to audiences and cultivate their loyalty. *TBS'* Executive Vice-President, Dennis Quinn, for example, viewed enhanced TV as a tool to increase time spent viewing on the network, attract viewers' attention and keep them engaged in its programs. Enhanced television is hailed as an important technical development of the television industry that utilizes the Internet to provide an interactive experience for its current and potential viewers (Robins, 2001).

TV viewers can take advantage of the Internet to enjoy their programs. In the past, they could hardly interact with a TV station anonymously. Information about TV programs is limited. Television viewing was more or less a home activity. Now they can easily get access to information on their favorite programs or explore program offerings by various stations, either within or outside their cable system carriage. They can visit a web site at work to watch video clips of their favorite show's outtakes and preview the programs. If they missed a TV news item, they could easily retrieve the item on a local TV station's web site. Such freedom and convenience that TV web sites offer to TV viewers will eventually create a new breed of TV-Web viewers (telewebbies) that utilize the best of both media either simultaneously or separately to satisfy their information and entertainment needs.

Enhanced TV Features on TV web sites

Four major types of enhanced TV features enable interaction between a TV station and its viewers on the Web (Hurst, 2000): (a) Fan-based features, (b) game-based features, (c) information-based features, and (d) programming-based features. Fan-based features aim at building better relationships with the fans of a show by providing opportunities to learn more about and/or connect with the show and stars. For example, by providing chat rooms or message boards, a TV network can facilitate the creation of a fan community for its programs/stars in the programs. Other examples of fan-based features are episode synopses, news and gossips about the TV stars, video clip archives, and lists of upcoming guests for a show to create a loyal following to the show.

Game-based features enable users to participate in a Web-only show or simulate a contestant's experience on a game show. One of the most successful has been the "Millionaire Game" featured on ABC's "Who wants to be a millionaire" web site. Sweepstakes, Question and Answer (Q & A), and other trivia quizzes are also examples of game-based enhanced TV features.

Information-based features are online functions that provide supplemental news/sports/weather information. Viewers can personalize the display of this information through user specified settings. Background information to news events, news and weather update, statistics and scores, third-party hyperlinks, and transcripts are examples of information-based enhanced TV features.

Programming-based features either facilitate a viewer's programming selection process or deliver selected web-based programs to the viewer. Program previews, TV schedules, original programs on the Web and simulcast are examples of programming-based features. In addition, many TV web sites use interactive features to obtain feedback or collect information from the viewers by means of online polls and e-mail links to the webmaster. Such interactive functions can also serve as TV commerce platforms for TV stations to conduct business transactions on the web, selling the advertisers' products or the TV station's merchandise.

Ohio TV Stations' Web Sites

To understand how Ohio TV stations use the various enhanced TV features on the Internet in their web sites, a study of all available Ohio TV station web sites was conducted in July 2002. A group of 16 undergraduate students trained in web site design coded the sites. The web sites' URLs were based on Bacon's TV Directory. For URLs that were not accessible, the author identified them either by typing the call letters of the station and add ".com" as the URL or finding the station in the search engine, Google. If the

TV station's web site could not be identified in all of the above ways, the TV station was deemed not having an operational site during the time of study and was excluded from the analysis. Web site features were grouped into five categories: 1) fan-based, 2) game-based, 3) information-based, 4) programming-based and 5) other interactive/TV commerce features. A total of 38 TV web sites were identified and analyzed. Twenty-three of the sites are from major commercial network affiliates (ABC, CBS, NBC and Fox). There are slightly more TV stations (21) in northern Ohio (Cleveland, Toledo, Youngstown, Dayton, and Lima) than southern Ohio (17). Table 1 lists all the TV stations and their network affiliation that were included in the study.

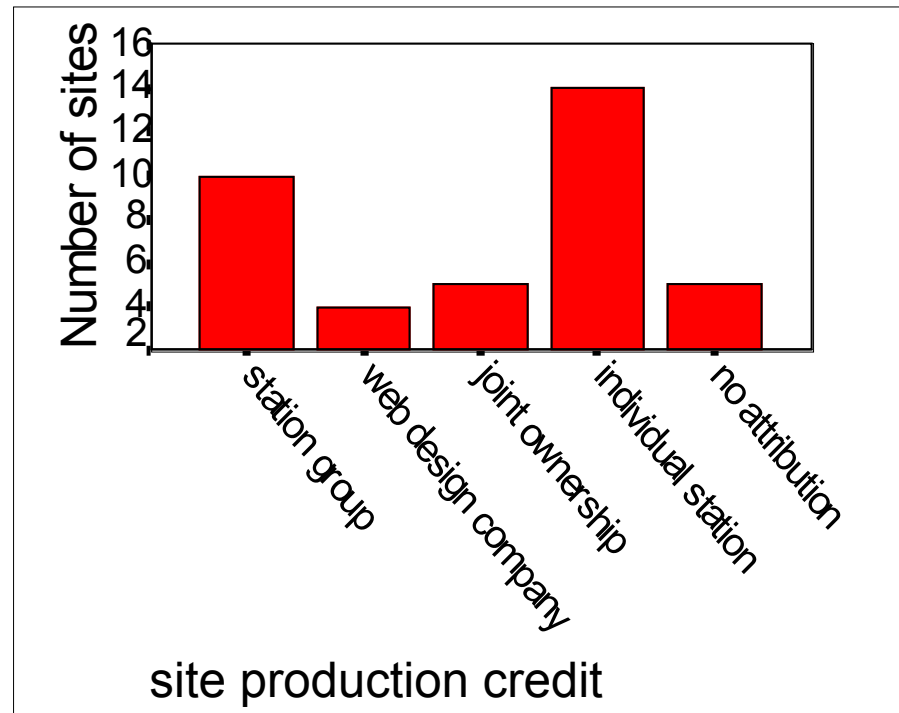
Table 1
List of TV Stations in the Study

Station	Network Affiliation
1 WIMN http://www.tct-net.org	Independent
2 WMFD http://www.wmfd.com	Independent
3 WCPO http://www.wcpo.com	ABC
4 WDTN http://www.wdtm.com	ABC
5 WEWS http://www.newsnet5.com	ABC
6 WSYX http://www.wsyx6.com	ABC
7 WTTE http://www.wtte28.com	ABC
8 WTVG http://www.13abc.com	ABC
9 WYTV http://www.wytv.com	ABC
10 WBNS http://www.wbns10tv.com	CBS
11 WCMH http://www.wcmh4.com	CBS
12 WHIO http://www.activedayton.com/partners/whiotv/	CBS
13 WKRC http://www.wkrc.com	CBS
14 WTOL http://www.wtol.com	CBS
15 WFMJ http://www.wfmj.com	NBC
16 WHIZ http://www.whizamfmtv.com	NBC
17 WKEF http://www.nbc22.com	NBC
18 WKYC http://www.wkyc.com	NBC
19 WLIO http://www.wlio.com	NBC
20 WLWT http://www.wlwt.com	NBC
21 WNWO http://www.nbc24.com	NBC
22 WKBN http://www.wkbn.com	FOX

23	WOHL http://www.foxlima.com	FOX
24	WUPW http://www.wupw.com	FOX
25	WXIX http://www.fox19.com	FOX
26	WBQC http://www.wbqc.com	UPN
27	WNGT http://www.wngt.com	UPN
28	WOIO http://www.woio.com	UPN
29	WWHO http://www.upn53.com	UPN
30	WBNX http://www.wbnx.com	WB
31	WSTR http://www.wb64.net	WB
32	WTLW http://www.wtlw.com	PAX
33	WVPX http://www.akron23.com	PAX
34	WGTE http://www.wgte.org	PBS
35	WNEO http://www.ch4549.org	PBS
36	WOSU http://www.wosu.org	PBS
37	WPTD http://www.thinktv.org	PBS
38	WVIZ http://www.wviz.org	PBS

This study first identified the production source of the site by locating the copyright ownership credits at the end of the page. Stations web site production sources were identified as: 1) network/group ownership, 2) individual station, 3) web site design company such as Internet Broadcasting System or WorldNow, 4) joint ownership by station and web design company 5) no attribution. As shown in Figure 1, most of the stations' sites were either owned by the individual station or the station group (24 out of 38). Notably, nine sites either share or let the web site design company owned the copyright of the site. There were also five sites with no identifiable attribution of the source.

Figure 1
Site Ownership



Sites that attribute the source to a web design company or jointly owned the site with web design company have the highest total number of enhanced TV features (average=13 features). Sites owned by station groups or individual stations have lower total number of enhanced TV features (average 10 features). Apparently, sites ran by web site design companies were more likely to diversify their features to attract visitors. Sites run by individual stations or station groups focused on a few features. The difference between web site design company-ran sites and stations' own sites is most significant on feedback and TV commerce features. Because such features require higher interactive technology to collect information, the expertise of professional web site design company can be capitalized.

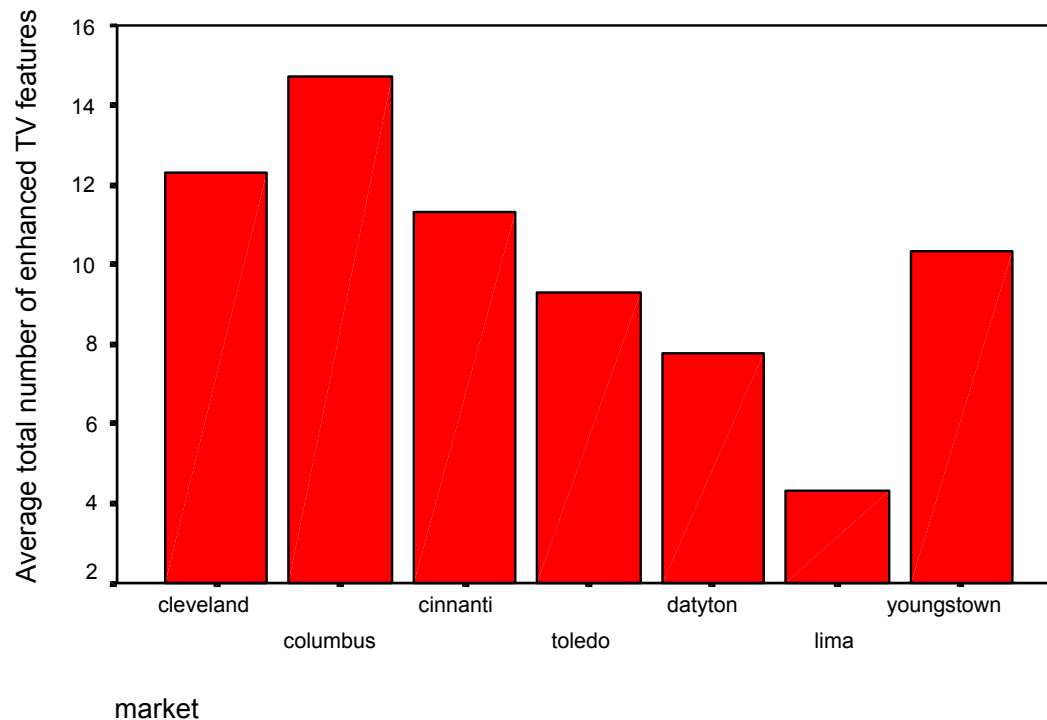
Among the five enhanced TV feature categories, information based features, such as news and background information, are the most commonly present features (average=0.65). The second most commonly available features are programming-based features

(average=0.59). The third most common ones are the feedback/TV commerce features (average=0.42). The fourth common ones are the game-based features (0.37). The lowest incidence is the fan-based features (average=0.35).

Market Comparison

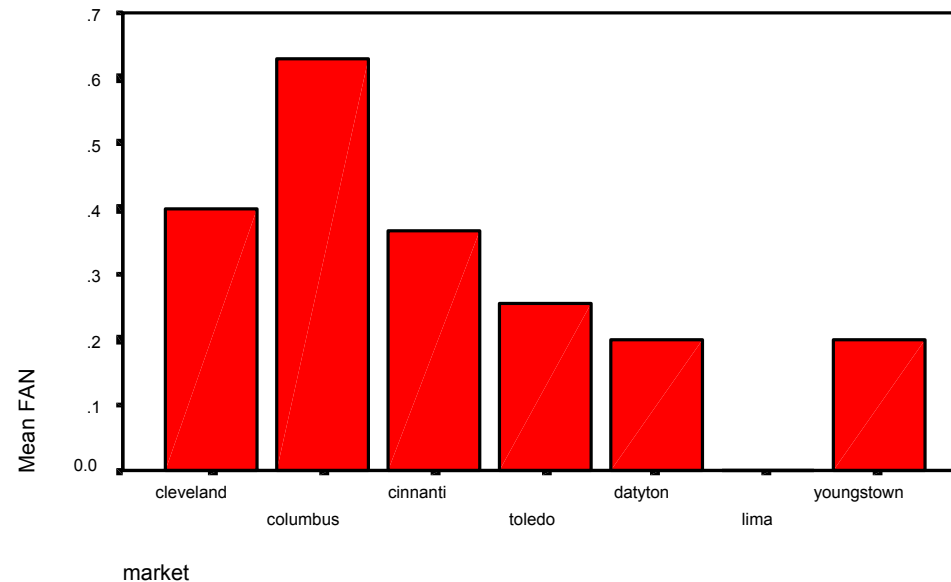
Among the Nielsen's TV markets, Columbus market's TV web sites had the most variety in enhanced TV features (Figure 2). On average, they have 14.7 features on their sites. Because Dayton and Lima are the smaller market stations, understandably they scored lowest in the average number of enhanced TV features on their sites. But Toledo, which has seven stations in the sample, has one of the lowest score in total average number of enhanced TV features on their web sites. The Zanesville market is excluded from the ranking as only one Ohio TV station belongs to that market.

Figure 2
Total Enhanced TV Features by Market



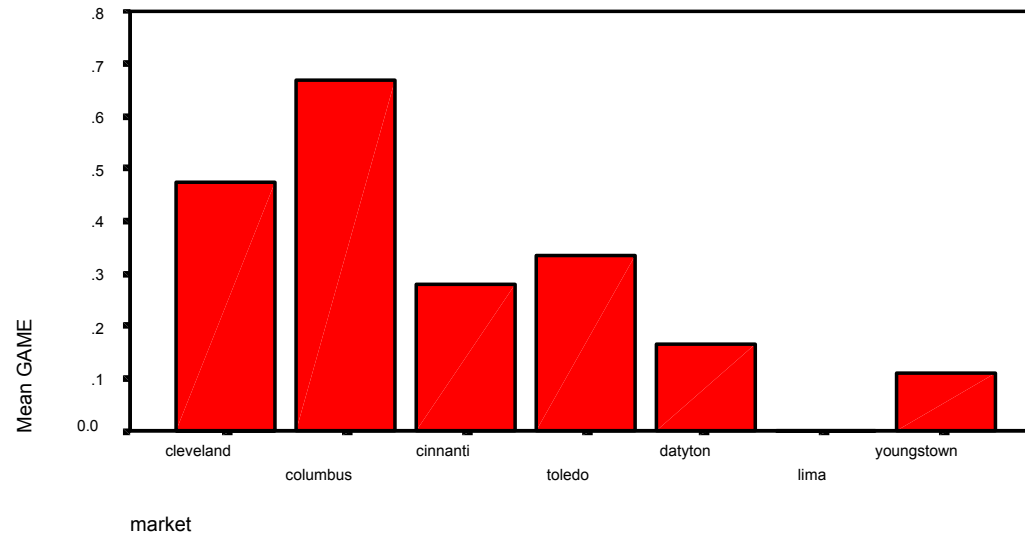
On the fan-based features category, none of Lima's stations used that category on their sites. Stations in Columbus had the highest use of fan-based features (average=0.62), followed by Cleveland (average=0.4). Toledo, Dayton and Youngstown all fared low on this feature category.

Figure 3
Fan-Based Features by TV Markets



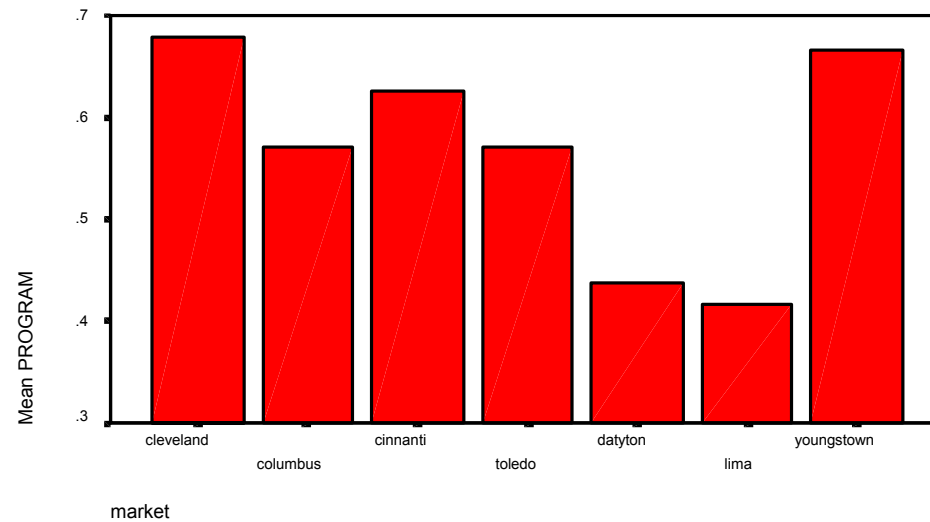
In the game-based feature category, the same leadership pattern of Columbus (average=0.67) and Cleveland (average=0.48) is observed. None of the Lima stations used any game-based features. Toledo fared better than Youngstown, Dayton and Cincinnati on this feature category (Figure 4).

Figure 4
Game-Based Features by TV Markets



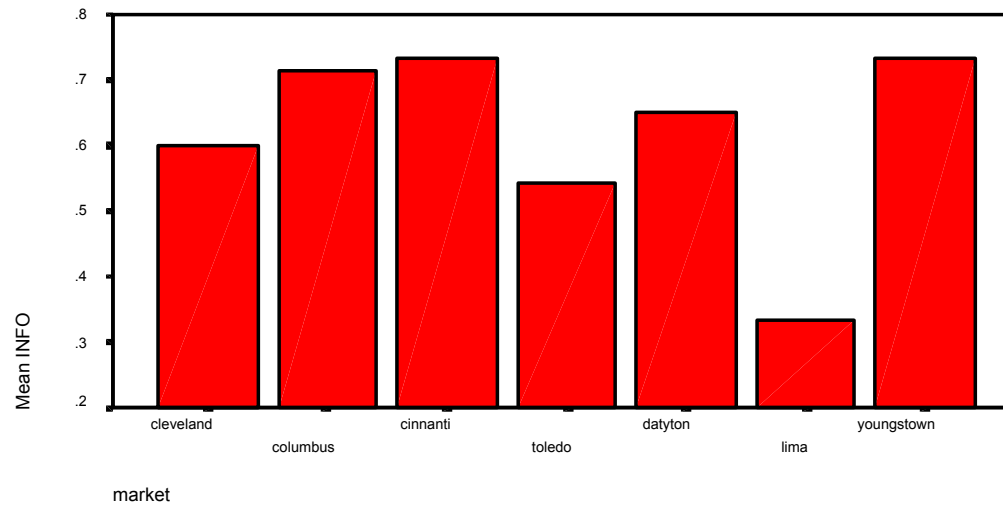
There were not many big differences among TV markets in the use of programming-based features. Although Columbus still took the lead (average=0.68), Youngstown was a very close second (average=0.67), and Cincinnati was a close third (average=0.63). Even Lima, the market with the lowest use of programming features, still scored an average of 0.42. It indicates that stations used programming-based features quite frequently across the board (Figure 5).

Figure 5
Programming-Based Features by TV Markets



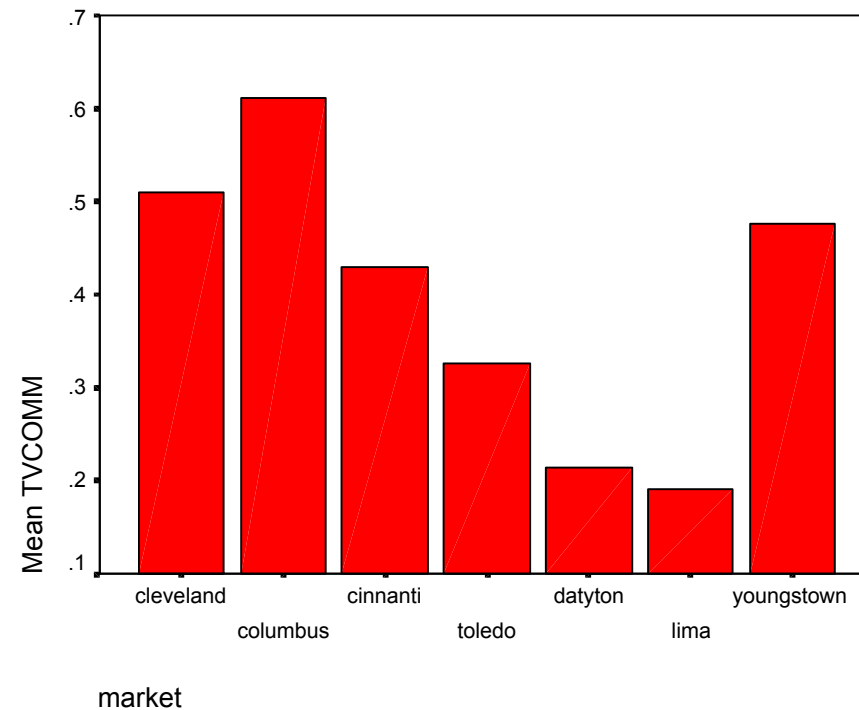
Information-based features were the most commonly used feature category. However, the difference between the heavy users and light users is relatively high in this category. Youngstown and Cinnanti scored highest in this category (average=0.73). Toledo (average=0.54) and Lima (average=0.33) were the two markets least likely to provide a lot of information-based features (Figure 6).

Figure 6
Information-Based Features by TV Markets



TV commerce and interactive features varied the most among all enhanced TV feature categories. While Columbus led in this category with an average number of 0.61, Lima had only an average of 0.19. Dayton had only 0.21 and Toledo had only 0.33 (Figure 7).

Figure 7
Interactive/TV Commerce Feature Category



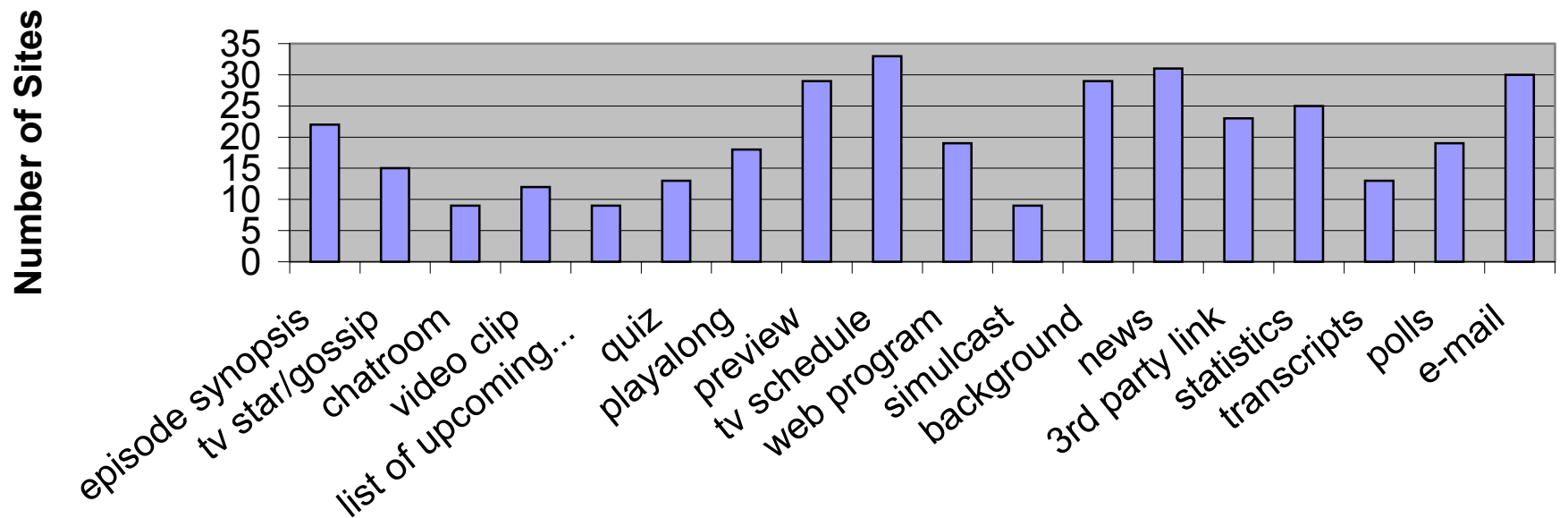
As shown in Figure 8, the most popular specific enhanced TV feature being used by Ohio TV stations is TV schedule. All except five TV stations provide a schedule of their program line-ups. Most of these web sites have strong news component in it by providing local and national news on its sites. One half of the sites have online polling on news and current issue such as “With appeals pending, and businessman Richard Detore’s Ethnic Hearing testimony, should the House wait on a vote to expel Congressman Jim Traficant?”). E-mail link to the TV station or its webmaster is also commonly found in the web sites. The least used features were those that demand high interactivity and bandwidth such as chatforum and simulcast. Interestingly, although talk shows are common daytime program genres for TV stations, not many of them feature the upcoming list of guests for those show to entice viewers.

Stations in southern Ohio had more sophisticated web sites than stations in northern Ohio (11.9 enhanced features vs. 10.2 enhanced TV features). The difference, however, is not statistically significant. Six out of 11 TV web sites of southern Ohio stations have simulcast of TV programs on the Web. In contrast, only three out of the 21 northern Ohio stations have simulcast of TV programs

on their web sites. Nevertheless, northern Ohio’s TV stations are more likely to have original programs on the Web than southern Ohio TV stations (57% vs. 41%).

Generally, the presence of e-commerce features was low across stations and markets. Less than one half of the stations showed products or ads for advertisers, or selling products featured in their TV shows on their web sites. Even fewer sold memorabilia of their affiliated TV network (7 out of 38) or memorabilia of the TV program (5 out of 38). Nevertheless, those stations that used e-commerce features either had dedicated shopping channels/marketplaces (such as WLWT of Cincinnati) or featured special products on their sites (such as (WVIT) UPN53 of Columbus). It is not known how well is the e-commerce business of these sites. Using web site to cross-promote sister radio stations within the same market can be found in some stations. For example, WKRC of Cincinnati featured seven local radio stations that belong to the parent Clear Channel Communication at the bottom of its home page.

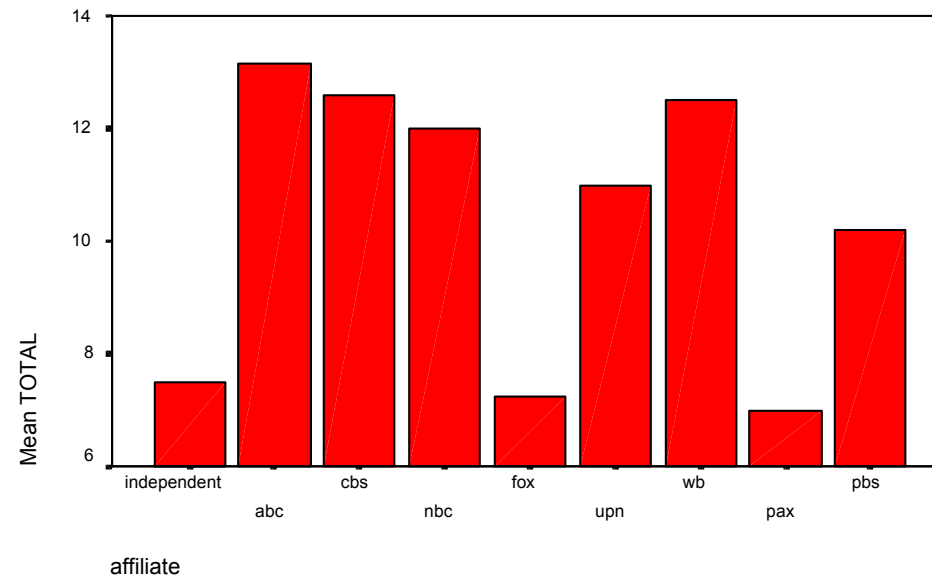
Figure 8
TV Web Site Features of OhioTV Statons



Network Affiliation

Network affiliation also differs in the use of enhanced TV features. ABC network affiliates have the highest average number of total enhanced TV features used, closely followed by CBS and WB. Interestingly, Fox affiliates have fewer enhanced TV features on their web sites than much weaker competitors such as UPN and WB. With smaller budgets, it is understandable that independent stations and Pax stations all had low use of enhanced TV features. But Fox affiliates' limited use of enhanced TV features may indicate the lack of the web site support from Fox network to its affiliates (Figure 9).

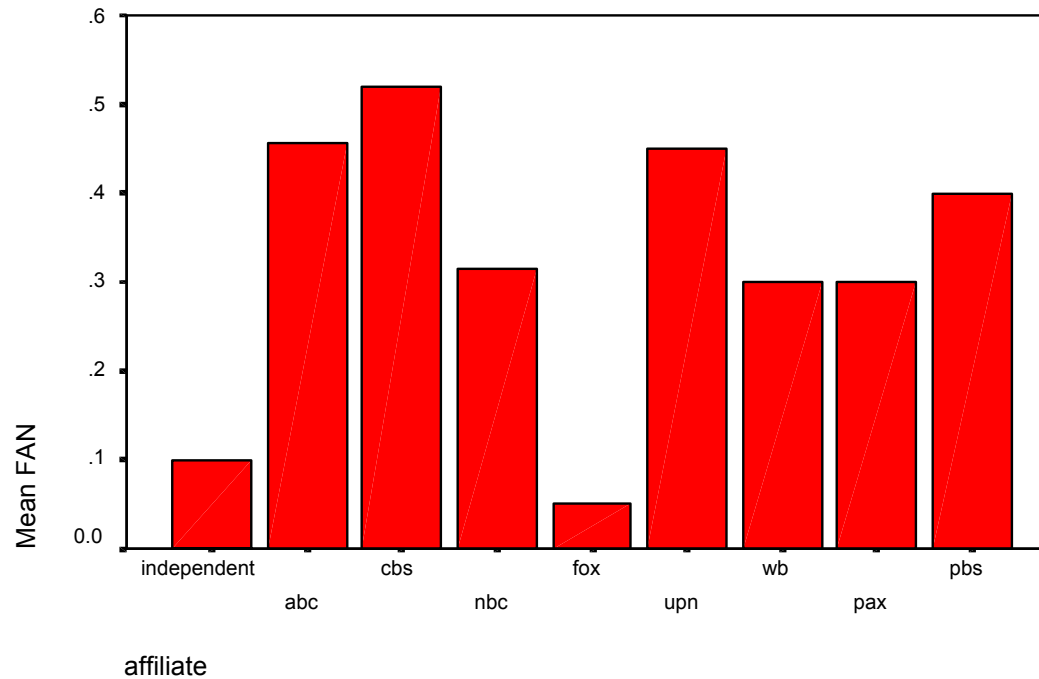
Figure 9
Total Enhanced TV Features by Network Affiliation



The use of feature categories also varied by network affiliation. CBS affiliates used the highest number of fan-based features than other network affiliates (Figure 10). ABC and UPN affiliates were close seconds to CBS affiliates in their use of fan-based

features. The weakest on fan-based features among network affiliates were Fox affiliates. PBS stations scored fourth in fan-based features.

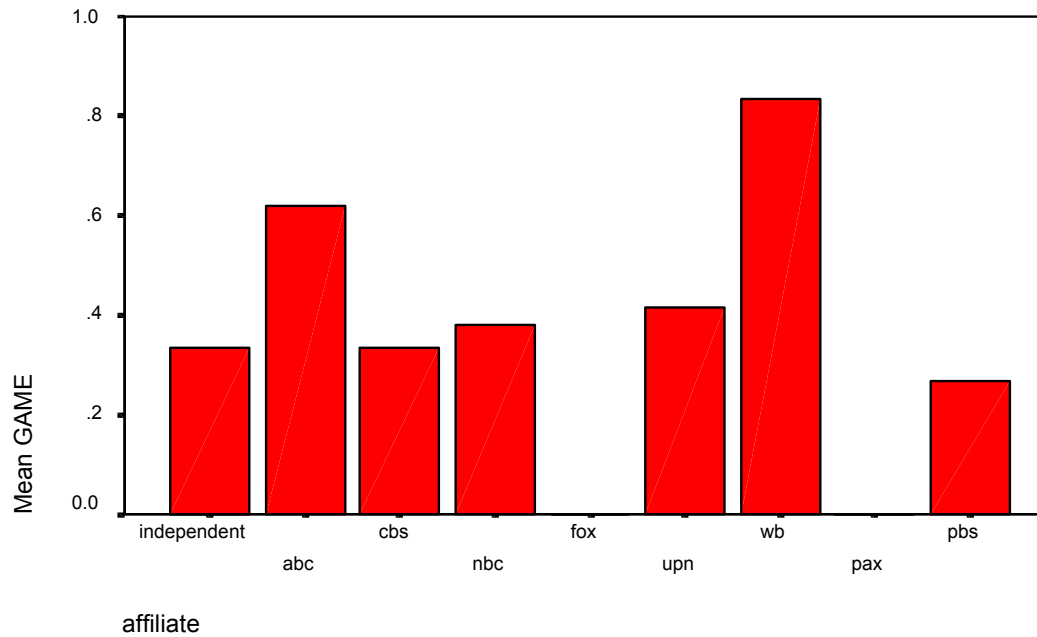
Figure 10
Fan-Based Features by Network Affiliation



As shown in Figure 11, game-based features were used very selectively by network affiliates. WB affiliates scored highest in this feature category. Fox and Pax affiliates did not use this feature category at all. Independent stations ranked similar in this category with CBS affiliates. PBS also scored lowly on this feature. The younger demographic of WB affiliates may probably lead the affiliates to engage the young viewers with game-based features.

Figure 11

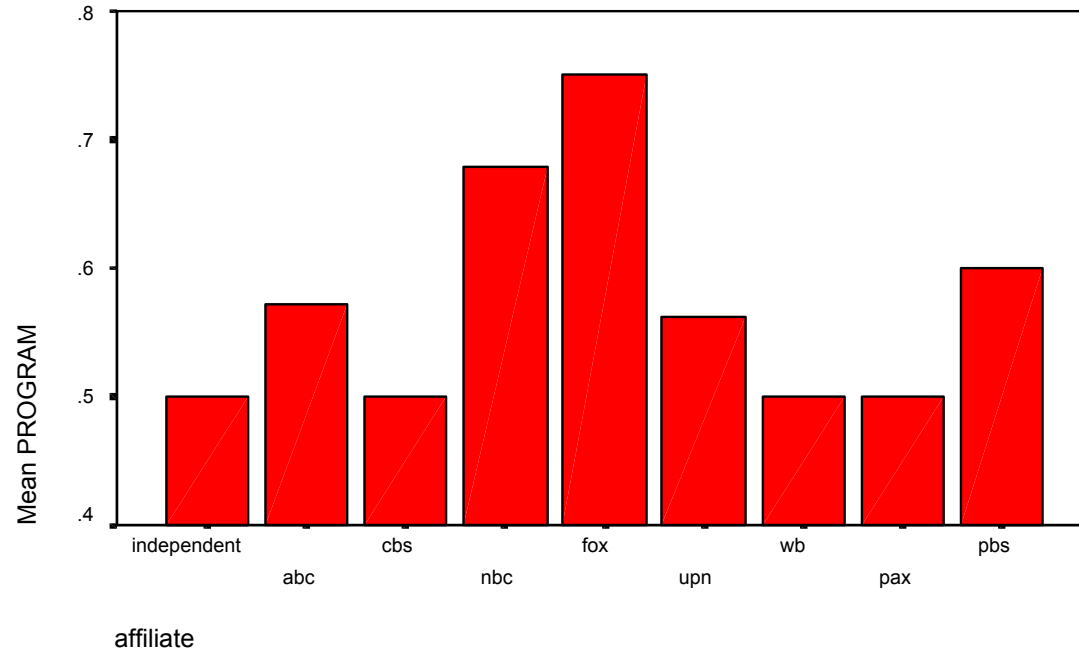
Game-Based Features by Network Affiliation



In contrary to their low overall use of enhanced TV features, Fox affiliates seem to concentrate on programming-based features with the highest score among all stations (average = 0.77). CBS, WB, Pax and independents were at similar levels in providing programming-based features (Figure 12).

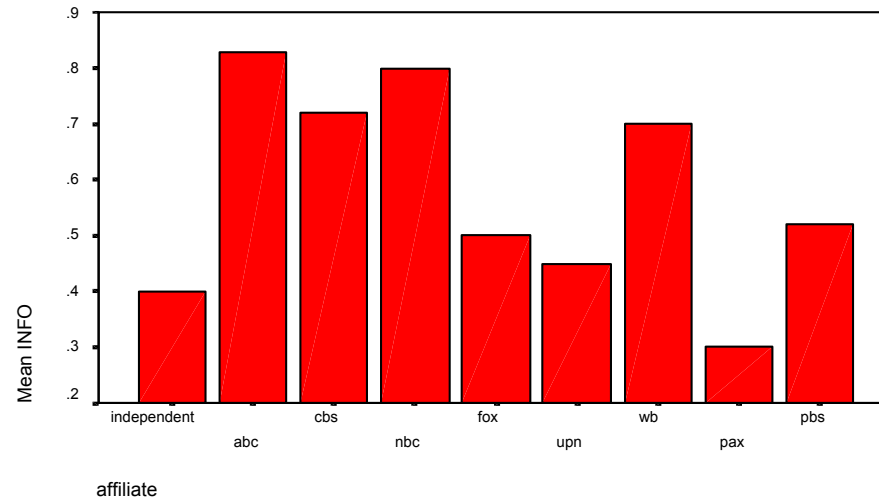
Figure 12

Programming Based Features by Network Affiliation



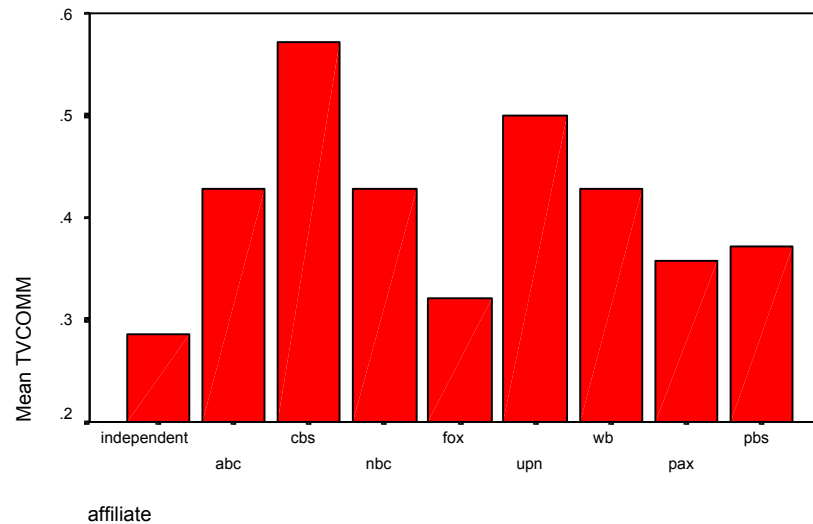
In providing information services to visitors, ABC affiliates fared best. Almost all information-based features analyzed in this study were present in ABC affiliates' sites. CBS and NBC all scored highly in this feature category (Figure 13).

Figure 13
Information-Based Features by Network Affiliation



The presence of TV commerce and interactive feature is an indicator of whether TV stations treat their sites as a profit center. The analysis shows that the presence is not high as less than one half of them contain at least one e-commerce features such as purchase forms. CBS affiliates were apparently most prominent in using their sites for business transactions such as shopping products and linking to advertisers. Most of the interactive features are e-mail links to the webmaster or the opinion polls. Only very few e-commerce features were found (Figure 14).

Figure 14
Interactive/TV Commerce Features by Network Affiliation



Managerial Implications

This study reveals that Ohio TV stations are similar to the national trend in that they have a very strong local focus on their sites. Some were not friendly at all to non-local residents because their sites did not show their call letters or network affiliation status. They simply called themselves as News5 Channel or Cincinnati's WB64. Most of the home page items are related to local news, making them a direct competitor to local newspapers' and national newspapers' web sites. Some stations are presenting themselves as the local city's portal. The competition for "local" representation will be fierce in the foreseeable future.

TV web sites have become an indispensable tool for TV stations to promote themselves, provide community and audience services, collect feedback and create additional revenue source for stations. As every viewer expects their TV station to have a presence on the web and daily updates are necessary to meet their needs, it has become a fixed cost to TV station managers. Prudent managers have to make the web site worth its cost by either attracting more audience and cultivating audience loyalty to the stations or utilizing the site for business transactions such as e-commerce. The more types of enhanced TV features that TV stations sites have, the more likely is the cost of the site. Enhanced TV features are to be utilized accordingly in one way or another to justify their cost. As this study shows, the bigger and more competitive TV markets such as Columbus and Cincinnati stations have more features on their sites. Such phenomenon indicates the willingness of the stations there to spend substantial resources on the sites. How consumers respond to those features will determine the success of the TV sites in enhancing the viewers' experience and creating more direct revenue (advertising and e-commerce) or indirect revenue (higher audience ratings) for the TV station. The author's national TV web

site audience survey conducted in 2001 shows a low use of enhanced TV features on web sites by visitors (Ha & Chan-Olmsted, 2002). TV viewers need to be educated on how to use the sites' features. TV stations should monitor their local viewers' use of the web site features and allocate more resources to features that audiences use or value. Adjustments should be made accordingly to compete effectively with other rival TV stations in the market. Then TV web sites will not only enhance the viewers' experience by also strengthen the TV station's position in the market. Finally, TV stations need to develop metrics to measure the success of TV web sites based on the site's objectives to enable manager to make a decision to increase or decrease investment on station web sites.

P. S. A copy of a national study of broadcast TV network web sites and cable TV web sites can be requested from the this author at louisah@bgnnet.bgsu.edu

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