AN ANALYSIS OF SPORTS COVERAGE ON CANADIAN TELEVISION STATION WEBSITES

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ABSTRACT

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Following the early days of the Internet and the World Wide Web, news media in Canada have gone on to develop their own news web sites with the intentions of meeting the on-line needs of media audiences, expanding their audience reach, and adding to revenue production and profitability on- and off-line. Web strategies have varied somewhat across the different media, but anecdotal evidence suggests that sports contents have been important for both print and television. This thesis focused on the latter, sports contents on television network websites, and was undertaken to evaluate how Canadian television stations are utilizing the Internet and web technologies to feature sports news and information. Only a few studies specific to sports television web sites have been done, and these have mainly focused on American news stations.

The research objective of the thesis was to systematically examine the web presence of sports contents on Canadian television web sites by conducting a content analysis of identifiably unique sites in the Canadian context. A site analysis protocol was developed through an iterative process. An initial instrument was constructed drawing on past research in this area. In particular, prior work by Bates et al. (1996 & 1997), Pines (1999), Bucy, Lang, Potter & Grabe (1999), Sparks (2001) provided systematic measures for examining the Web presence of television stations. Ha & James's definition of interactivity (1998) was also useful as was the work of Cho (1999), Rogers & Thorson (2000) on Internet advertising. The initial instrument was evaluated and modified during a series of trial scans. The final instrument focused on five areas: body of the home page, types of content, presentation mechanisms, interactivity and advertising. A systematic site analysis was conducted from August to October, 2003, and a total of twenty-one sports home pages were analyzed. Three web sites (TSN, Leafs TV and The Score) were found to have a good balance in the five areas evaluated in the study.

The results of independent-samples t-tests showed that general television networks had more sports top news and hyperlinks to other news items than sport specialty networks. By comparison, sports specialty networks tended to have more sport-related search engines and greater efficiency of space. CBC's "Sports Forums" that were configured on its sports home page gave the public broadcaster the highest quotient for interactivity in comparison with the twenty private networks and stations in the study. Advertising was present in all of the sites, and the findings point to an increasing interest in the televisual and sport web site media in producing revenue through web-based advertising.

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CHAPTER 1

INTRODUCTION

I. Background of the study

The Internet has become impossible to ignore since its birth. Particular industries, such as computer hardware and software, have been very successful because they offer information and interactivity support to a particular audience already predisposed to finding them on-line (King, 1996).

Traditional broadcast media are also beginning to consider the implications of the Internet and the World Wide Web upon their business (Bates et al., 1997). On-line service providers encouraged networks and local affiliates to establish e-mail links, discussion groups, and program related content (Bates et al., 1997). In broadcast industry, rather than trying to provide new content, this approach is to tie in with existing programming and give users an opportunity to add additional value to their viewing experience (King, 1996). ESPN's website is one of the few that has moved to direct fee for service, hoping to draw in sports buffs anxious for scores and detailed information not available during a broadcast (King, 1996). Some analysts see the Web as even a better fit for the cable nets because of their specialized appeal and the major networks expect the sites to soon be revenue producers of their own (King, 1996; Bates & King, 1996).

Another distinguishing asset of website in a computer-mediated environment facilitated by the Internet technology is the interactive Internet advertising which allows web users to control with information for how long and go to the information directly that interest to them. With the advent of the new Internet World Wide Web as an advertising medium, online advertising spending increased dramatically annually and got positive expectation on the increase in the following year from almost all professional media research institutes like Internet Advertising Bureau, Jupiter Communication and Forrest Research. Theoretically, the claim by many researchers (Caskey & Delpy, 1999; Delpy & Bosetti, 1998) that the Web allows one-to-one selling on a large scale and stimulates interactivity between the advertisers and the consumers is correct. In the early days, advertisers thought they had found the magic bullet in banner ads which typically consists of a combination of graphic and textual content and contains a link to the advertiser's website via a click-through URL (Briggs, 1997). Later on

more types of online advertising are invented to capture users' attention. But as the novel wore off, the negative views to online advertising such as its threat to consumer privacy and its disruptiveness emerge to argue its effectiveness. Whatever the web surfers like the online ads or not, the advertisers and marketer are always trying methods that work as long as ISP allows it even if technology has been developed into special software, e.g. like pop-up stopper to end the intrusive ads.

II. The area of the study

In the very brief history of the medium, sites offering sports content have traditionally been among the Web's most popular destinations (Caskey & Delpy, 1999). ESPN was one of the first media companies to attempt to capitalize on the Web advantage when it launched Sportszone in April 1995 (Caskey & Delpy, 1999).

In Canada, CBC, CTV and Radio-Canada are big networks linking to local television stations to provide all information including sports. TSN and other specialty stations are providing update sports news too. For all those broadcasters, website is a new venture to promote TV programs to audience (Bates et al., 1997). The Television Bureau of Canada (TVB) is the industry association for commercial television broadcasters in Canada. It provides a complete list of TVB member organizations that represent television networks, specialty stations and local television stations that affiliated with networks.[1]

Bucy, Lang et al. pointed out (1999) that part of the appeal and power of any audio-visual medium, including the World Wide Web, depends on the way information is packaged. Survey of Web users indicates that form is important to the perceived attractiveness, usefulness, and value of Web pages (Pitkow & Kehoe, 1995; Bucy, Lang et al., 1999).

With the help of the Internet technology, initially static sports news can be turned into rich audio and video experience. More sports fans with a demonstrated interest in the team or event will be attracted to website to obtain instant and vivid sports news. To make the Web a competitive news medium, journalists and web designers should fully exploit the interactive features. Presently there are too many options available to sports fans to seek out their favourite sports, teams and players. In

[1] www.tvb.ca

Canada, full-service sport sites like CBC sports, TSN.ca provide scores and sports news to millions of fans every day. In every province daily and weekly newspaper with sports section are also providing up-to-date news periodically. Another attractive site wholly devotes to sports fans is fan.ca in which not only news about teams, leagues and associations but also the online brand management, content delivery, marketing and sales support and e-commerce solutions for sports organizations are provided.[2]

Thus, to a sports television network website, the vital question is whether or not the service made available by new computer technology will survive in the marketplace. Can it live up to full potential of computer-mediated communication that will make them stand out of competition with sports newspaper website or with other online sports news outlets such as sports fans' sites?

To this end, the Web presence by sports television network is an interesting area for researchers to analyze what types of content on sports television network websites are presented by what formal features. Moreover, this study asks if interactivity capabilities of the Web are being exploited by stations to the extent that the popular literature suggests the Web are.

III. Rationale of the study

Considerable web research has been done to assess the design and operation of web in variety of areas such as business, journalism, education, health, and even political activities (Bucy, Lang et al., 1999; Marshall, Drapeau and DiSciullo, 2000; Ha & James, 1998; Peng, Tham and Hao, 1999; Massy & Levy, 1999; Lowrey, 1999; Singer, 2002; Li, 2002; Esrock & Leichty, 1999; Lang, Potter and Grabe, 1999; Ghose & Dou, 1998; Kenny, Gorelik and Mwangi, 1999; McMillan, 2000). Some web research has been tapped in area of television network to examine the extent of how television network is utilizing web features (Bates et al., 1995 &1996; King, 1996; Pines 1999). However, the research specific to the web presence of Canadian sports television network is insufficient. This may lead people in sports to be in the shortage of understanding to sports news effectiveness and, perhaps, prevent sports news journalists and web designers from better using computer-mediated technology. Therefore it is necessary to conduct a research to gain an overall understanding of the web presence of Canadian sports television stations.

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[2] www.fan.ca

The analysis of Internet advertising has increased substantially with the diffusion of web research in different areas to judge how online ads utilize the Internet technology to actively approach the target audience in the computer-mediated communication environment (Pavlou & Stewart, 2000; Cho, 1999; Rogers & Thorson, 2000). However, the specific analysis of Internet advertising that are coming up with sports news on sports television network websites is still a blank.

According to King (1996), most hypermedia existed in closed loop systems, web design issues were limited to the context of a particular application and the programmer could maintain consistency. Typically, these issues fall into three broad categories (King, 1996): information that is available to the use from within the hypermedia environment; presentation that is bearing on the content to show to the user; interactivity that is the extent of how user controls and get involved in the hypermedia environment (King, 1996). The analysis of Internet advertising was not covered until the end of 90s Internet got greater growth. Bucy, Lang et al. (1999) considered advertisement as one of website elements that matters to web page structure. Different approaches to analyze the effectiveness of online ads have been growing (Rogers & Thorson, 2000; Pines, 1999; Cho, 1999; Cho, 1999; Pavlou & Stewart, 2000). So online advertisement was added as one element in this study. Considering the body design of home page represents general formal features as a gatekeeper to deeper layers of website (Bucy, Lang et al.1999), home page body will be one element to be analyzed as well. So far, five elements recommended by literatures are about to be coded. Respectively, five categories of each content sample will be coded.

IV. Delimitations of the study

This study was subject to the following delimitations:

1. This study only from media and advertiser's perspective to assess the construction and appeal of the Web presence of sports television station; not from web user or consumer's perspective. In other words, the researcher is trying to design the variables as close to objective as possible from a structure perspective as opposed to any other subjective variables that are based on cognitive theory in psychology from functionalist perspective.
2. This study only designed to fit with content analysis as opposed to qualitative research.

3. This targeted sites included only sports television network websites in Canada; excluded sites companion of sports radio or sports movie;
4. The study only targeted Canadian sports television network website samples instead of the US sites. Although in many areas audience can receive American sports television signals, American sports television network websites are not included in the study due to the complex of broadcast system policies and economy factors, otherwise a comparison study will be designed to address questions arising from such situation.

Chapter 2

LITERATURE REVIEW

I. The glance of Canadian television industry

In Canada, there are three major networks – Global, CBC and CTV, reaching most of areas in a national basis in Canada. These three giants never stopped acquiring regional television networks as well as newspapers and magazines. A few regional networks sold their shares gradually and disbanded.

CTV became the first private television network in Canada since it was able to link eight of Canada's newest stations from coast-to-coast in 1961 (Anthony, 2002). Now CTV has 21 owned television stations and 3 affiliating stations.

CBC English network and its affiliates reach approximately 99% of the English-speaking population[3].

CanWest became the third national TV network since its takeover of WIC (Western International Communications) which had access to roughly three-quarters of the English language television market (Anthony, 2002). Each of CanWest associated network has different obligations to the specific market it serves. Three independently affiliated stations run under the CH banner which is different from the Global banner labelled on 11 CanWest owned stations. Global Communications Corporation operates the Global Television Network from 11 over-the air television stations.[4]

Craig Broadcast Systems has ever had the reputation of the fourth largest broadcaster in Canada (Anthony, 2002). It established A-Channel which has a format of being energetic, fresh and hip with focused approach to local audience (Anthony, 2002).

Since 2001 the Canadian television got specialized and over fifty specialty channels catering to practically every interest were available along with specialty features such as an on-screen programming schedule (Anthony, 2002). CHUM Television distinguishes itself from other television

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[3] 2002-2003 Media Digest, Canadian Media Director's Council, P13

[4] www.canwest.ca

network by developing a series of independent stations that are commercial and special as well. CHUM owns City TV, Much Music, BRAVO, which is promoted as a "New Style Arts Channel", The New VR, Space and 7 digital channels including BookTelevision, SexTV, Drive-in Classics (Anthony, 2002).

The common practice in television industry is a multi-dimensional operation. As Leonard Asper, CEO of CanWest, predicted that the future newsroom will be online, will be electronic, will be on-screen, will be one-content creator from which each of the platforms it serves can choose the content[5].

II. Public broadcasters and private broadcasters

It's not easy at all to be a non-commercial public broadcaster to live facing with aggressive competition. In English Canada where there are more than 200 channels in the major markets on most cable systems (Bugailiskis, 2002). While private networks continue to add bunches of new specialty channels, public broadcasters are fighting to retain a certain share of audiences that confers on them the legitimacy to retain licence fee funding (Hills & Michalis, 2000). Theoretically the public broadcasters must represent the cultural diversity within the society it serves, make a plurality of content available to feed the ability of its users, and function as citizens in a democracy (Hills & Michalis, 2000). As Harold Redekopp, vice-president of CBC Television stated, "When CBC started we owned everything...childen's, science, history." (Bugailiskis, 2002). One of critical programs CBC proud of is sports airing across Canada. Hockey Night in Canada is very popular. CBC Sports has actively covered and supported amateur sports in Canada for more than 50 years, each year produces approximately 300 hours of amateur sports content, over and above events like the Olympics, the Pan Am Games or the Commonwealth Games[6]. Redekopp said CBC would continue to use the ad revenue from HNIC to pay for and increase the amount of amateur sports (Bugailiskis, 2002). In fact, "Sports programming is a good example," said Gerry Wall, a broadcasting consultant with Wall Communication Inc., "to show how the CBC is doing on the front competition directly with the private broadcasters (Hyatt, 2000)". The seemingly not that positive side originated from the CBC's

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[5] Broadcaster Magazine, From Winnipeg to the World: 25 Years of Making the Impossible Possible, January 2003 http://www.broadcastermagazine.com/issues/past_issues.asp

[6] Broadcaster Magazine, CBC Television - Celebrating fifty years, Sports: Sports' Import, 2002 Archive http://www.broadcastermagazine.com/issues/past_issues.asp

heavy dependency on government's fund is that the CBC must serve the public in many conditions – such as a ban on primetime blockbuster movies, expending regional TV newscasters to weekends, reducing repeat programming and increasing original children's programming in French – that are stringent and costly (Hyatt, 2000).

The private broadcasters are in a comparison to freely air programs with the root of market-based approach for the private sector. More importantly, private broadcasters often got policy permission from CRTC who would not let the CBC turn to the direction where probably many advertising dollars go around, e.g., the CBC and Radio Canada could no longer air recent popular foreign movies from 7 to 11 p.m. since 2000 (Hyatt, 2000). The Global Television Network has been an active participant in advancing knowledge amongst the broadcasting community in Canada (Fortner, 2003). In January 2003 Global's Barber Greene production facility hosted SMPTE Toronto's 16th annual satellite meeting by allowing broadcaster engineers in remote locations across Canada to interact with the meeting via telephone (Fortner, 2003). A series of troubles drag the CBC into dilemma. The CBC was challenged of losing its authentic identity, the audience rate dropped for a long time, there was not enough crews rushing out for breaking news (Bugailiskis, 2002). One sort of opinion complained the CBC was draining money from the public offers to do what private broadcasters can do (Solomon, 2002). The other sort of opinion was the CBC was trying to be generalist in an age of specialization (Solomon, 2002). The CBC was trying to apply transformation policy to tackle the seemingly endless debate concerning the role of ads on the public broadcaster (Bugailiskis, 2002). CBC removed all commercials from its newscast at 6 and 10 p.m. and also took away commercials out of performing arts and tried to compensate the loss of ads revenue by managing partnership with advertisers in a creative way (Bugailiskis, 2002).

Theoretically and in a perfect world, public and private broadcasters would co-exist in harmony (Hyatt, 2000). Yet the competition originated from the demand of appealing the television audience has been haunting in the minds public and private broadcasters all the time and won't vanish in an easy way although private broadcasters say they never felt threatened at all by possible competitions from public sectors.

III. Computer-mediated communication on websites

Today it's almost impossible to find an online newspaper to appear without sports sector, or a television site without sports news. Fan sites, which although lack the official endorsement of the leagues, teams and companies they represent, now already got support from more fans so that these casual sites can design better attractive web pages to feed fans' appetite.

The Internet brought up a revolution to make many-to-many communication flow possible. As such, the Internet supports discussion groups, multi-player games, file transfer, electronic mail, retrieval system and the global information access (Hoffman and Novak, 1995). This many-to-many and also two-way communication is operationalized and facilitated by the feature of interactivity embedded in the website design. The new communication environment produced by the development of the Internet and the World Wide Web is clearly and fully illustrated and called Computer-mediated environment by many authors in prior works on communication revolution and accordingly new conceptual foundation (Hoffman and Novak, 2000). Also, in Steuer's research (1992), the primary and naive relationship between the sender and receiver is extended and mediated into a rather complicated but very effective and efficient environment in which every information seeker is able to interact with each other as well as the information sender. Medium is playing an important role in the heart of communication flow model.

The problem of how to capitalize on the Internet advantages to facilitate online communication and tighten fans' relationship with leagues and teams can be turned into the concern of whether or not interactivity feature made available is able to encourage a two-way or multi-directional flow of communication between sports fans and sports owner by adopting the possible computer-mediated communication technology and then beat other news provider competitors.

IV. The convergence of Television and the Internet, the Web

The media scope has been changing along with the emerging impact brought by the Internet. In some extent the Internet and media are like a prospectively universal mass medium in which everyone will soon participate (Schiller, 1999). At the other spectrum the Web technologies are offering a great opportunity to market segmentation. The appearance of the Internet brought a sweeping change from the concept to operation in television industry. Despite having existed since

only 1991, the Web has advanced to the point where formatted text and graphics. VHS-quality video, and CD-quality sound can be embedded in pages that can be transmitted and viewed with ease (Turner, 1999). Gill (1997) stated that the distinction between the computer screen and TV monitor, between data processing and broadcasting, had been steadily disappearing from a consumer's point of view through the convergence of sound the video on the computer. As the Internet has become an established means of distribution, the extent of convergence of websites and broadcasting services is the hot argument throughout the industry. Disney's ESPN cable channel became more profitable than its ABC broadcast network (Schiller, 1999). Television networks seem capable and ready for the Internet because they have already had great depth of brands and consumers loyalty to them, said Michael D. Eisner, Chairman of Walt Disney in 1998 on the eve of the debut of Disney's Go Network (Hansell, 2000). There will be no turning back to an era offering only basic, undifferentiated channels to a heterogeneous audience (Schiller, 1999).

Broadcasters' practices range from a standard Web site that promotes their stations' identities, to the function more as substitutes than as complements, to more complex enterprises, including video streaming and interactive content (Frutkin, 2000).

One model for broadcasting service lied with becoming 'portals' on the Internet and would see broadcasters setting out to compete with the likes of Yahoo! or Alta Vista, utilizing their brand name to refer users via search engines or hyperlinks onto sites that they have pre-selected and that pay them for the privilege (Hills & Michalis, 2000). At the beginning, this try sounded reasonable. A major television network is an aggregation of many types of programming-news, sports, comedy, drama so it seems natural that the corollary of the network in the digital age is the Internet Portal-a one-stop shop full of entertainment and information, bundled with a search engine and lots of other useful features like news and email (Hansell, 2000). But this portal practice got the negative evidence over the last couples of years. ABC was trying to build Internet portal-Go Network, NBC to build Snap, which hopefully would challenge Yahoo and American Online (Hansell, 2000). It turned out that they lost audience share although they got down their knees in a swamp of tedious portal necessities like building business directories and creating retail transaction services that little to do with the media companies' expertise while American Online, Yahoo and MSN have all increased their shares by more

than 10 percent in 1999 (Hansell, 2000). The common mistake was that the network overestimated its own strengths but in fact failed to provide deep and sophisticated features that successful portals can.

The Second practice was to focus on the promotion of television and copy of programming. Jeff Osborne, CEO of ComQUEST Research Inc., stated that a broadcaster's Internet activity shouldn't mirror the core broadcasting activity otherwise the effort would be duplicated and the Internet's strength will be under-utilized (Osborne, 2000).

The only successful example was originated from the effort most closely aligned with broadcast programming, e.g., the financial report on CBS MarketWatch.com; ESPN.com promoted by ABC and ESPN; high traffic at the sites for CBS's hit shows "Survivor"; people answer the questions before the contestants begin "Who Wants to Be a Millionaire" competition played on ABC (Hansell, 2000).

After early trial, the network companies have been uncertain whether to make their Internet operations independent, to emulate the fast-moving style of other Web companies, or to keep them part of their broadcast operations, to take best advantage of their popular media content and packaging skill (Hansell, 2000). Major networks reassessed their strategies and then took different steps. CBS, rather than trying to create a network-scale portal, backed a dozen independent and specialized Web services like MarketWatch, Sportline and Iwon; Fox, hoping to capitalizing on the rollout of high-speed and broadband, took Internet connections that are much better suited to disseminate video signals than are conventional television lines and built toohotforfox.com, a site that offers video outtakes from the Fox network's so-called reality programming; NBC, planning to scrap the heavily promoted Snap and several other brands, focused on a redesigned site under the name NBCi.com; Disney, recognizing the futility of going portal-to-portal with either Yahoo or AOL and learning from the success of its own ESPN.com, focused on its Web effort on entertainment and leisure activities (Hansell, 2000). Though CBS considers buying or building a broader portal to present a unified view of its 200 local stations and its affiliated Internet sites after the monthly audience has grown to 8.4 million people based on Media Metrix report, it won't give up its strict financial discipline that kept it from entering the sort of deals its rivals did (Hansell, 2000). Bates et al.'s research in 1995 and proceeding research in 1996 showed that the different web presence among several network

affiliations were originated from the history of networks and the respective emphasis (Bates et al., 1995 & 1996). Pines (1999) found that three major television networks-ABC, NBC and CBS were presenting differently in terms of information types, presentation mechanisms and interactivity on websites.

The commercial broadcasters, newspapers, Internet portal providers and other new content providers have entered the market where public service broadcasters dominated earlier and want to carve out audience share. These competitors can much more freely choose in the spread and depth of their offerings. The local television stations had adapted their Web sites to seize a portion of the $15 billion annual market for U.S. classified advertising that had long been claimed by newspapers (Schiller, 1999). In New York, Boston, San Francisco, and seven other top urban markets, CBS was trying to get viewers to log on to view real-estate ads, help-wanted listings, and other classifieds. (Schiller, 1999). The CBS vice president who was coordinating Internet efforts for company-owned affiliates declared that they could compete toe-to-toe with the print world (Schiller, 1999).

Television medium largely responds to and mirrors existing beliefs, attitudes and lifestyles and is communicating with as many as people as possible in all sorts of different environments: news, weather, sports, games, comedy, drama and so on (Osborne, 2000). Schiller (1999) listed several efforts done by 1997 to far advance to link the two media-television and the Internet: Oprah Winfrey, whose talk show reached a daily audience of some 15 million viewers on television, successfully carried a portion of her audience to her AOL program service; Disney's popular ESPN SportsZone comprised another such crossover attempt; Rupert Murdoch sold TV Guide for $2 billion to United Video Satellite Group, hoping to migrate the program guide into an electronic format on the Web, concurrently with cable television and digital broadcast services. However, Schiller anticipated that it was still too soon to tell exactly which companies would successfully dominate the market for Web-based experiences (Schiller, 1999).

The Global Television Network launched their Web site, Globaltv.com in December 2000 and renewed the new canada.com in September that has reached its cost-saving target.[7] According to Jupiter Media Metrix, the newly integrated site at www.canada.com received 1.7 million unique visitors

[7] http://www.canada.com/aboutus/history.html

in September, the most "unique Canadian visitors" of any Canadian site in the news and information category.[8]

V. Sports television and the Web

A. Sports specialty station

Specialty channel is one distinguishing part that brings niche audience and stable revenue to every television network. Different content ranging from comedy, history to travel are developed with strong orientation to accommodate diversified audiences from children to the elders. In terms of sports specialty channel, it is welcomed by sports fans all the time and many broadcasters launch the sports channel. The Sports Network (TSN), Canada's Sports Leader, went on the air in 1984 (Anthony, 2002). In October 1997 CTV launched sports specialty channel-The Outdoor Life Network, Canada's Adventure Destination (Anthony, 2002). Alliance and Atlantis Communications (AAC) started in 1999 telecasting sports news highlights and limited live sporting events in a new sports channel, which renamed The Score in 2000 (Anthony, 2002). In September 2001 a Canadian television innovation was launched through Leafs TV, the first specialty channel in North America dedicated to a single sports team (Anthony, 2002). Raptors NBA TV dedicates to providing in-depth coverage of everything happened in Toronto Raptors and the NBA, including live Raptors games, exclusive live NBA games and WNBA, NBDL games.[9]

B. The natural fit between sports and websites

Brown (1998) stated that the successful websites occurred almost naturally on sport related websites giving the user a content rich environment with subtle advertising messages which would be changed frequently, blended promotional and non-promotional information and created customer interactivity.

New technologies provide the avid the casual sports fan with instant access to a wide range of information and editorial content (Turner, 1999). Two convergence delivery systems, known as WebTV and netcasting (or webcasting) are being developed and each of them has indication for sport (Turner, 1999). Aside of a plug-and-play Internet-TV system which allows users to connect their

[8] http://www.canada.com/aboutus/history.html

[9] 2002-2003 Media Digest, P23

television set to the WebTV network, netcasting which represents the broadcast of events as pictures on the Internet and involves the integration of a comprehensive system for moving audio and video over the Net using streaming media is targeted to a particular group or individual (Turner, 1999). Sport fanatics seeking endless knowledge and updated news are attracted to sport team's official website or sports television website where player and team statistics changing hour and daily are conveyed in the forms of video clips or saved video and audio files.

Therefore it is no wonder to see big sports organizations are promoting their products such as team roster, player biographies, tickets, news release, merchandise, player transaction and etc. on the Internet.

C. The integration of sports broadcasting with Internet technology

Whatever the strategy television industry is using, the focus of question is how traditional television broadcasters deal with the emergence of the Internet, specially in the World Wide Web context (Bates & King, 1996). Traffic to broadcast networks in the US lags behind the big portals like Yahoo, AOL and MSN although broadcast networks are still the most powerful media forces and have the ability to promote their websites with unlimited amounts advertising on television (Hansell, 2000). Although the promise of full broadband interactivity might be several years away for most viewers, some of network pioneers have started trying to capitalize on the format's potential, e.g., Fisher Broadcasting's KOMO-TV in Seattle has created an interactive news broadcast with WebTV (Frutkin, 2000).

In terms of packaging, the web might be used for add-on content to existing channels or used to bring together offerings from a number of channels to focus on a specific market segment, e.g., an education channel or a sports channel might be stronger on the net than off-air (Hills & Michalis, 2000). In terms of transmission and access, the broadcaster's site might seek to expand its market from the nation-state to a regional or global presence and become the gateway to other websites, an authoritative source where hyperlinks to other sites has taken place (Hills & Michalis, 2000). Hills and Michalis (2000) evaluated several public service broadcasters' websites including the BBC, ITV, Granada and Carlton in Britain, France's France2 and Frances3, Germany's ARD and ZDF, Australia's ABC, Canada's CBC and the USA's PBC in order to fill the gap in the understanding of the

strategies that public service broadcasters are utilizing in relation to the Internet. They found out the websites of public service broadcasters vary considerably (Hills & Michalis, 2000).

Theoretically, the multimedia features add attraction to website pages. There are always factual problems to hinder the development of web construction. The poor quality of pictures and sound, the low modem connection instead of high-band width communications line, the limited flexibility associated with existing broadcast rights agreements and etc., all of them could attribute the slow development within sporting organizations (Turner, 1999). In other words, receiving equipment, satellite footprints, cable connections, legislation, and subscription are factors to affect the availability of web site to individual PC user (Hoffman et al., 2000).

Although the extent of convergence of television and the Internet is unknown, researchers still believe that the fast developing technologies will improve and facilitate the quality of multimedia on the Web. There are enormous potential to sport programmers with respect to presenting their sport through many effective ways and may lead to opportunities for smaller sports with a clearly defined niche market to present images of their sport to a select global audience (Turner, 1999).

D. The use of the Web by sports as a communication and marketing medium

With help of the Internet, media is bound up in a profound threefold shift of the greater media system, from "mass" to "class" marketing, from national to trans-national marketing, and from what people might call probabilistic to individualized marketing (Schiller, 1999). More accurately, advertisers had been pivotal to this triple reorientation (Schiller, 1999). Quoted by Schiller (1999), Edwin Artzt, CEO of Procter & Gamble, made a historical assessment of the role of advertising in media development: "We created programming. We moulded the environment to fit our needs. We created soaps, comedy shows, variety shows, and mysteries" in May of 1994. Web-originated programming, from the Mars Pathfinder probe to ordinary radio shows, had demonstrated an arresting potential to reach audience.

Just like Kraft Foods were thinking to connect interactive Web sites to TV commercials so that as an ad for macaroni and cheese materials, viewers can click onto a Kraft icon on the screen and connect to a Web site featuring a recipe (Schiller, 1999), sports-related website is a potential marketplace to proliferate attempt at segmentation and conduct direct marketing among niche

consumers market. In an era where the sports fan consumer has an increasing array of media choices (due to cable, pay TV, the Web), professional sport organizations need to establish relationship marketing strategies to encourage one-on-one marketing (Net-related contests are nothing new in sports promotion on the Web). In addition to purchasing advertising, Anheuser-Busch required advertising space on league Web sites as a part of sponsorship packages (Brown, 1998).

To determine if the criterion for developing a successful Web site is being met by sports organizations in North America, Brown examined 24 MLB teams in 1998. The information content was tested on the basis of four P's of the marketing mix because of its applicability in all sports sectors and its widespread use as teaching tool in marketing subjects (Brown, 1998). Only five teams used at least 50 percent of information categories including product (roster, news release, player biographies, merchandise catalogue, transactions, history, ticket sales, minor leagues, game results, statistics), price (ticket sales), promotion (online chat, event promotion, multimedia, trivia, screensaver) and place (schedule, ballpark, training, direction, hotel) (Brown, 1998). Brown (1998) suggested that more teams must integrate more interactive features by using fast-developing Web technologies to increase site traffic.

Carlson et al. selected 10 Australian professional basketball team websites to determine how the content related to the elements of the marketing mix. The results showed that the most frequently used in information content categories based on Brown's classified categories (1998) was team's identifiable URL domain name, player information, statistics, season's schedule, and match location (Carlson et al. 2003). It is suggested that interactive content such as voting poll, bulletin boards, search facility, tipping competition, chat rooms, downloaded content, trivia and giveaways should be utilized more (Carlson et al. 2003).

To test the powerful role of relationship marketing for web sites in football club in the UK, Beech, Chadwick and Tapp (2000) did an exploratory study which combined qualitative interviews with empirical observations of football Web sites. The result of websites audit showed that merchandising in the way of virtual retail outlets, the provision of club facts and statistics, delayed and live online in chat facility were the most obvious information (Beech, Chadwick and Tapp, 2000). The criticisms raised by this audit was that clubs were missing out on segmentation-based marketing

opportunities because web users did not have to register to access sites nor were they required to complete questionnaires or profiles to indicate why or when they were using sites (Beech, Chadwick and Tapp, 2000). Therefore they concluded that football clubs in the UK were successful as a community builder to provide daily updates of news that match programmes or club-based magazines as well as a successful chat facilities (Beech, Chadwick and Tapp, 2000). In this sense the Internet is at its most powerful (Beech, Chadwick and Tapp, 2000). In contrast, one-to-one marketing (or any market segmentation strategies) was under-used by clubs (Beech, Chadwick and Tapp, 2000).

VI. Research relevant to the home page construction

Many organizations are investing their resources to stake their claim on the Web as an extension of their current business operations. The utilization of the Web for communication purposes can enable a firm to achieve a competitive advantage in the marketplace. A successful web site is a result of effective and efficient collaboration and communication by expertise in marketing, information architecture, graphic design, writing and editing, programming, and project management (Rosenfeld & Morville, 2002). A successful web site is also a functional, value-added channel that enriches the total company's experience, thus enhancing brand or product loyalty and fostering stronger customer relationships (Carlson et al., 2003). The competitive advantage or so-called value-added features on the Web vary across different web sites and from different theoretical or practical perspectives. From information architecture perspective, value-added features on a hierarchical organization website could mean the form of simple narratives or stories that introduce new users to the organization and to the web site (Rosenfeld & Morville, 2002). Interwoven throughout the text of these narratives are in-context links to selected sub-sites (Rosenfeld & Morville, 2002). On a commercial firm's website, information-based marketing where the interactive exchange of information and the content, quality and speed of responses can be a source of competitive advantage (Carlson et al., 2003). On a professional sports team's web site, users send questions or comments to players, coaches, and team personnel allow to respond via email as well as personally to the users (Brown, 1998). This also can be called value-added component only on website than nowhere else. The following sections are approaching the content and design of the Web page in five ways: body of the home page, types of content, presentation mechanism, interactivity, and advertising. In this study presentation mechanism and interactivity were considered as value-added components unique to sports coverage on television network web site.

A. Design of the home page

1. Screens

Two continuous studies done by Bate et al. in 1995 and 1996 showed that the 1996 home pages seemed to be tighter and more focused, than the pages examined in 1995. The number of pages having more three screens of content declined from 35% to just over 20% (Bates et al., 1997). Moreover, only two of the 1996 home pages examined contained more than 10 screens, where Bates and King (1996) has reported that more than 5% of 1995 site pages ran longer than 10 screen (Bates et al., 1997).

2. Background colour

Though Bucy, Lang et al.'s research (1999) was not specifically about network sites, their point of view about general design features in the body of home pages was good enough as a start point to examine the home page of network site. Bucy, Lang et al.'s report (1999) and several other researchers' finding on the background colour of the home page revealed that effective use of colour can indicate the sophistication of a website's design. Studies have shown that warm colours (red, yellow, orange) attract more attention and appear closer to the viewer than cool (blue, green, violet) ones, plus Pace's interesting finding (1984) about the use of blue as a background colour on visual display units associating with reduced error rates for reading, thus, warm colours should be used for the foreground and cool colours for the background. Further, solid background instead of multiple colours surrounding an object of interest is recommended by design experts (Bucy, Lang et al., 1999). Zhang, Keeling and Pavur (2000) quoted the recommendation by Karp and Karp (1997) about white background for websites or a light shade of grey, or an earth-tone colour if a coloured background must be used.

3. Navigation

When users are looking for information on the web page, navigation is an aid for them. Studies showed that different readers have different preferences on how they like to navigate around a website (McGovern & Norton, 2002). Therefore, to accommodate a variety of readers and their navigation requirements, a range of navigation options should be offered (McGovern & Norton, 2002). There are 4 types of navigation systems: hierarchical, global, local and ad hoc navigation systems. Navigation system of a website should be designed with care to complement and reinforce the hierarchy by

providing added context and flexibility, in other words, a successful web site is to balance the advantages flexibility with the danger of clutter (Rosenfeld & Morville, 2002).

- Hierarchical navigation system: from the main page to the destination pages that house the actual content, it is the primary navigation system and extremely important but also rather limiting, so often is required additional navigation system (Rosenfeld & Morville, 2002).

- Global or Site-wide navigation system: the simplest global navigation system might consist of a graphical navigation bar at the bottom of each page. A slightly more complex global navigation system may provide for area-specific links on the third level to show users the current position (Rosenfeld & Morville, 2002).

- Local navigation system: a sub-site within the larger web site echoes the look and feel of the parent site and features the parent site logo in consistent location (Fleming, 1998). Jacob Nielsen defined "sub-site" as a collection of Web pages within a larger site that have been given a common style and a shared navigation mechanism[10]. A few characteristics of a good sub-site are: (1) This collection of pages can be a flat space or it can have some internal structure, but in any case it should probably have a single page that can be designated the home page of the sub-site; (2) Each of the pages within the sub-site should have a link pointing back to the sub-site home page as well as a link to the home page for the entire site; (3) By giving a more local structure to a corner of the information space, a sub-site can help users feel welcome in the part of a site that is of most importance to them; (4) A large site will often contain heterogeneous information that cannot all be squeezed into a single standard structure, so the ability to have sub-site with somewhat different look-and-feel can provide an improved user experience[11].

[10] Jakob Nielsen, The Rise of the Sub-Site. September 1996, **Jakob Nielsen**'s Alertbox for September 1996

[11] Jakob Nielsen, The Rise of the Sub-Site. September 1996, **Jakob Nielsen**'s Alertbox for September 1996

- Ad hoc navigation system: a separate menu of ad hoc links at the top or bottom of the page that point to useful related resources or an embedded hyper-textual link within sentences or paragraphs (Rosenfeld & Morville, 2002).

Whatever the nature of website, a user-focused navigation within the hypertext environment needs to be built. Basically there are two ways to provide navigation aid: text-based navigation and graphic-based navigation (Sklar, 2000). In global and local navigation systems, the most common and important navigation elements are those that are integrated into the content-bearing pages of the web site (Rosenfeld & Morville, 2002). Most integrated navigation elements fit into one of two categories: navigation bars and pull-down menus (Rosenfeld & Morville, 2002).

1) Navigation bars: A visually more appealing graphical menu came to offset the feeling of boring due to simple text-based menu (Raggett, Lam & Alexander, 1996). A simple way to achieve this is to design an image map in which different areas of an image act as different hypertext links. Either graphical or text-only site map is a good way to help user identify location and search any interesting information easily (Sklar, 2000). Rosenfeld and Morville (2002) reminded the web designers to consider those users with text-only browsers and those users with high-end browsers who turn off the graphical capabilities to get around more quickly. Frames present an additional factor to consider in the application of textual or graphical navigation bars. The use of frames has become a subject of controversy on the Web (Sklar, 2000). Frames can be the right solution for solving specific information problem or for providing large collections of content (Sklar, 2000). But in poorly designed framed websites, frames detract from the user's experience with heavy download times and confusing navigations (Sklar, 2000). So a relatively small and non-obtrusive frame-based navigation bar and a vertical rather than a horizontal frame are recommended when frames are needed (Rosenfeld & Morville, 2002). Basically, because web designers can't know what types of computer environment each user will be using, to avoid unnecessary being annoying, many architects and designers deal with frames carefully (Rosenfeld & Morville, 2002).
2) Pull-Down Menus: Pull-down menus allow users to expand what appears as a single-line menu to present dozens of options without first going to a separate web page (Rosenfeld & Morville, 2002). A programming language Java or JavaScript completes a more sophisticated version of the pull-down menu called pop-up menu that pops up a menu when users move the cursor over a word or area on the page (Rosenfeld & Morville, 2002). When the site's content is very straightforward with exact organization scheme, these menus work well (Rosenfeld & Morville, 2002).

4. *Remote navigation elements*

Remote navigation elements or supplemental navigation systems such as table of content, index and site map are external to the basic hierarchy of a web site and provide an alternative bird's

eye view of the site's content (Rosenfeld & Morville, 2002). Table of contents for web sites should be considered in a hierarchical website while in a not-strong hierarchical website, a manually created index can be a good alternative one (Rosenfeld & Morville, 2002). The site map is narrowly defined as a graphical representation of the architecture of a web site (Rosenfeld & Morville, 2002).

Generally, navigation systems, which are composed of a variety of elements such as graphical navigation bars and pop-up menus on the content-bearing pages, and tables of contents and site maps providing remote access to content within the organization structure, can be designed to feature resources that are related to the content currently being displayed (Rosenfeld & Morville, 2002).

5. Labelling systems

Labels come in two formats-textual and iconic ones and they usually do double duty-the heading that break up and identity the chunks of information on the same page, second, link to information on other pages (Rosenfeld & Morville, 2002).

6. Searching systems

Usually sports website contains highly dynamic content. A convenient searching system can help users get their preferred information quickly. Multiple pathways to information were suggested to meet the variability in users' searching expectations: known-item searching (users know exactly what they want); existence searching (users know what they want but don't know how to describe); exploratory searching (users know how to phrase their question but don't know exactly what they are hoping to find); comprehensive searching (researchers and students want unique topic in a specific area) (Rosenfeld & Morville, 2002). Simple interface that almost anyone could figure out and use right away is ideal for the novice or for a user with a pretty good sense of what he or she is looking for (Rosenfeld & Morville, 2002). For the advanced users, a more powerful interface is created to accommodate fielded searching (Rosenfeld & Morville, 2002). For sports coverage web page, it was assuming that users would be sports fans and have pretty good sense of sports. Plus the nature of sports offers people fun to enjoy as opposed to struggling for industry jargon to make sense, simple search box would be expected to be on most sports web pages and would be good enough for searching for any sports-related information. Because the function of search engine would be

incorporated in interactivity dimensions later, the presence or absence of search engine would not be duplicated as one part of home page body.

7. Layout

It is a poor choice to take documents that are formatted for prints and post them online without considering the destination medium (Sklar, 2000). In contrast, a good example is that the text width is short and easy to read without horizontal scrolling (Sklar, 2000). Regarding the web page layout, whatever two or three-column layout, most current information is presented in the centre of the viewer's attention (Sklar, 2000). A common layout is icons in the right column highlighting the featured items, consistent navigation choices and the company's identifying logo are at the top of the page, while the left column holds secondary-level links (Sklar, 2000). E! online is an entertainment news site where the four-column mail page contains competing content that draws the user's eyes, such as animations, a Java text scroll, bright colours, and familiar shapes (Sklar, 2000). In contrast, Pen & Ink's website has a paper-based and mainly textural look to suit visual expectations of company's audience (Sklar, 2000). Sklar stated (2000) that during page design, rank the information need to display, and then position the most important in the middle of the window, the next important across the top, and with the least important or static information in the left margin.

A computer monitor's screen resolution is the horizontal and vertical height and width of the computer screen in pixels (Sklar, 2000). The highest resolution of 1024 x 768 allows people to display more on the screen. The web designers are reminded to be careful when making the decision to code at higher resolution because any content that does not appear with the 640 x 480 window will display additional scroll bars, although vertical scroll bars are the norm while horizontal scroll bars being annoying considered by most users (Sklar, 2000). Results from the CyberTRENDS quarterly study conducted in December 2001 by ComQUEST Research Inc. shows Internet usage in Canada continuing to grow-approximately 51% of Canadian adults use the Web on a weekly basis, 80% of Canadians with household incomes of $80,000 or greater used the Web at least once in the past 7 days (2002-2003 Media Digest). With more people using Internet, some designers say that 800 x 600 is common enough to use as a base resolution (Sklar, 2000).

B. Types of content

The types of content vary across different natures of websites. One group of studies specific to television site analysis focused on how web content supported and advertised TV programmes (Bates et al., 1996 & 1997; Pines, 1999). Content types pointed out by Bates and King in two continued studies targeting U.S. broadcast television network websites in 1995 and 1996 were informational features, e-mail, forums, survey, search engine and network promotional suite (Bates et al., 1996 & 1997). Similarly, the content categories identified in Pines' study of 110 commercial television network websites (1999) included news, network promotion, programming and advertising.

One group of studies from web design perspective focused on categories facilitated by web technologies (Huizingh, 2000). Huizingh (2000) distinguished three categories of information to carry web content: The first category was between commercial (i.e. background of the company, mission statement, an overview of completed projects and etc.) and non-commercial information (related to company, i.e. geographical location, its industry and etc.) (Huizingh, 2000). The second category was transaction related features (i.e. direct ordering, request for proposals) (Huizingh, 2000). The third category was entertainment (i.e. jokes, cartoons, pictures, video clips and etc.) (Huizingh, 2000).

Many commercial site analyses focused on financial features to facilitate online translation. Palmer and Griffith (1998) summarized dependable variables such as prizes, online purchasing, technical support and etc. as components in an emerging model of web site design for marketing. Zhang, Keeling & Pavur (2000) summarized web page characteristics such as e-mail, on-line help, privacy, stock price and etc. on a diverse range of web sites from e-commerce oriented company to commercially-oriented company in 200 Fortune 500 companies.

There are indeed several site analyses focusing on sports marketing in sports-related websites. Most of them approached professional sports teams or games websites where relationship marketing strategies were utilized from 4P's of the marketing mix or one-on-one marketing perspective (Brown, 1998; Beech, Chadwick & Tapp, 2000; Carlson et al., 2003). Brown summarized the following categories into Product of 4P's: roster, news release, player biographies, merchandise catalogue, transactions, history, ticket sales through the Internet, minor leagues, games results, statistics, merchandise purchase through the Internet (Brown, 1998). On-line chat, multimedia, trivia, and

screensaver were counted as Promotion of 4P's (Brown, 1998). Schedule, ballpark, training, directions, view from seat, history of ballpark and hotel were seen as Place of 4P's (Brown, 1998). Ticket sales were coded under Price of 4P's (Brown, 1998).

Although the above studies were not specific to sports coverage on television network website, and they all emphasized different components on sites due to different media outlets they are serving, some categories and dependent variables suggested by those literatures can also be found on sports coverage television web pages. Therefore, based on the above literature review, this study summarized a series of variables that fitted content of sports television website. Three categories were classified as followed: informational content, transactional content, and promotional content.

1. *Informational content (all sports-related news)*

Bates and King (1996) examined 61 American television network websites with totally 3316 pages in terms of the content and formats of content. The result revealed by content analysis concluded that the commercial networks were primarily using their websites as information sources which complemented and supported their primary broadcasting function (Bates & King, 1996). A follow-up content analysis of 416 American television network website by Bates showed that web designs were moving more current information deeper into the site and maintaining the initial home page as a guide (Bates et al., 1997). In other word, home pages were providing guides to information as opposed to placing the information content directly.

2. *Transactional content*

E-commerce enlightened the partnership of broadcasters and the Internet. A brand new perspective was brought by MyTVShop.com, a New York-based company in 2000. They offer broadcasters e-commerce opportunities to let the broadcasters keep pace with networks and studios (Whitney, 2000). If a network carries portions of a local marathon on air with accompanying stats and times on its Web site, it will be a perfect opportunity for the network to sell athletic goods online or to sell online ads to athletic retailers. The retailers hold positive attitude for television e-commerce future where the power of TV's visual message through video streaming is recognized by people (Whitney, 2000). Especially on profession sport team website the transactional features such as on-line shopping,

merchandise catalogue and tickets sales could be found (Brown, 1998; Beech et al., 2000; Carlson et al., 2003).

3. Promotional content

The station's website served more as a promotional tool than as an independent medium of communication (Bates & King, 1996). The higher use of links to network and network's logo found would indicate more promotional elements presenting on home pages.

The Oakland Athletics provided a team screensaver to be downloaded by users of the site (Brown, 1998). Raptors TV also allows users to download screensaver on its website. This action was considered in this study as one of team promotion tools.

The heavy promotion elements that also appeared on sports home page were not coded under this category. The links to network content would be coded under connectedness in interactivity dimension that would be mentioned in later session. Such interactive features as on-line chat, chat room and billion board that were considered in other studies (Brown, 1998; Carlson et al., 2003) as team promotion or Web site promotion enabling the site users to interact with the team in various fashions (Brown, 1998) would be coded into reciprocal communication of five-dimension interactivity in this study.

C. Presentation mechanisms

According to media richness theory, the multimedia interactive format should provide capabilities richer than the text and photographs of sales brochures and catalogue (Palmer & Griffith, 1998). It is a common sense that web hosts need to consider users' download speed and the reduction of cost to justify web marketing expenditures. Huizingh (2000) pointed out that web page designers must find a balance between an attractive design and providing plain content. In terms of web technologies, broadcasters found themselves caught in the glare-wresting with how to integrate new technologies into their business plans (Frutkin, 2000). Concerning broadcasters' performance on the web and their partnership with digital companies, most of negative comments focus on the wrong position broadcasters have been placing and the wrong purpose broadcasters have been pursuing. Monte Walls Burris, VP of corporate media affairs for Global Media Corp., a New York-based firm that helps stations create online revenue streams, said that stations is missing ingredients to make

money on the Internet because they don't realize their web presence is a separate business and the resources and built-in advantage can turn out revenue only after broadcasters find out a new angle to transform a basic web presence into a full-serve multimedia experience with enhanced graphics, video streaming and e-commerce functions (Frutkin, 2000). Canada's Alliance Atlantis Communications was taking reality TV to the Web with the launch in 2000 of Canada's first internet-based channel named U8TV.com in which the lives of 8 young Canadians living in a loft in Toronto would be captured by wired cameras to produce an unscripted and unvarnished resumption of the round-the-clock daily life (Fortner, 2001). Zev Shalev, U8TV.com's CEO and Co-founder, said that U8TV.com was engaging television programming on the Internet for the 18 to 34-year-old market (Fortner, 2001).

The result of 1995's research done by Bates and King (1996) revealed that till 1995 most network home pages made little use of visuals including icons, graphics, photos or video and audio clips. In contrast, one-year later the rework (Bates et al., 1996) found the sophistication of web pages that had incorporated such visual features increased indeed although more advanced web features were slow integrated. Due to easy adoption of technology image maps and motion graphics were highly used although audio and video elements were rarely incorporated (Bates et al, 1997). King stated that in much of hypermedia, design elements on the screen served double duty as icons to enhance functionality (King, 1996).

There are a growing number of image file formats using in Web pages. GIF, JPEG/JPG, PNG files have advantages as well as disadvantages when they are dealing with different sized images with different attributes such as colour, transparency because they are their own preferred graphical Web browsers at different colour palette (Schengili, 1997; Raggett, Lam & Alexander, 1996). The use of clickable graphics is common too, that is, when user clicks on the graphic, and the link is triggered. To avoid a long time to download a large painting or photograph, a small clickable graphic as the label for a link is often used (Raggett, Lam & Alexander, 1996). A new technology called streaming media is essentially a workaround designed to supply passable multimedia content in an environment of clogged networks and slow connection (Turner, 1999). The capacity for a sport to deliver live or delayed video footage of the game coupled with immediate interactive communication and sales strategies, targeted at individual viewers around the globe, offers both the viewer and sporting organization significant opportunities (Turner, 1999).

Pines's research about commercial television network websites in the US (1999) revealed photographic images were the most common feature, animation in the form of flashing images was the next. Besides these two mechanisms, sites used very few possible multimedia features (Pines, 1999). Bates and Pines's measurements for presentation mechanisms were borrowed and developed to test how sports television network were utilizing those multimedia techniques on websites.

Another common conception is that web pages violate accepted design rules, e.g. the overuse of page frames, animated images, text and excessive page length. But Bucy, Lang et al. revealed that among 500 websites selected from the frame of the top 5000 web sites ranked by Web21's proprietary service, the suspected violations did not happen (Bucy, Lang et al., 1999). In contrast, their seemly avoidance resulted in the lack of many features. Bucy, Lang et al. found out that due to increasing amount of information redundancy and duplication within similar sites, the media organizations were obliged to cover the same spectrum of stories through creative information packaging and hopefully would distinguish their product or content (Bucy, Lang et al., 1999). In general, the measures used by Bates et al., Pines, Bucy, Lang et al. were incorporated into the code sheet as a series of gauge to examine the presentation mechanisms on sports television network websites.

D. Interactivity

There are a variety of purposes such as to increase customer loyalty, to increase sales of program-related products, to strengthen feedback, and to increase its own accountability (Hills & Michalis, 2000). Hills and Michalis stated (2000) that websites could be rated according to their ease of use, the changes in their content (how often for what form of information) and their level of interactivity.

Lasica (1996) pointed out the features that distinguish websites from other media were: multi-media, speed for updating information, horizontal distribution, decentralization, accessibility, no hierarchy, no censorship and interactivity. Among them, interactivity was the primary characteristic of new technology and already was recognized by many researchers across the disciplines of communication, journalism, computer science, business and marketing as well (Kenny, Gorelik and Mwangi, 1999; Ghose & Dou, 1998; Massey & Levy, 1999; Dibean & Garrison, 2001). As early as in 1995 Bates and King in University of Tennessee Communication College examined the application of

interactivity on the web by local television network in the States (Bates & King, 1996). The results showed the level of interactivity among 3316 pages at 61 network sites was limited (Bates & King, 1996).

The concept of interactivity has been explored in studies of computer-mediated communications (Heeter, 1986; Rafaeli, 1985; Rice 1984; Rogers, 1985; Ha and James, 1998). Interactivity has caused a considerable assessment of communication research (Rice and Williams, 1984; Pavlik, 1996; Ha and James, 1998).

Ha and James (1998) defined five dimensions of the interactivity:

1) Playfulness, meaning the presence of curiosity arousal devices and computer games. Ha and James (1998) defined that curiosity arousal device meant the question or poll format that stimulated users' participation by lottery prize. The computer games here were very similar to video games with which many individuals were familiar and in which many people have indulged (Ha and James, 1998).
2) Choice, meaning user preferences such as browser, colour, language, customizable news. Some stations offer users the newsletter or allow users to join email listserv where they can receive updated news automatically. This is called customization of news. BBC.com allows users to choose "lower graphics version" which has no graphics design to speed up browsing.
3) Connectedness, meaning five different types of hyperlinks:
    - Links to self product related
    - Links to other part of network like a network, syndicated programming, sister television or radio station, newspaper, or magazine (Pines, 1999)
    - Links to the third-party (advertising)
    - Links to further information related to news within the site
    - Links to further information outside of network sites

Readers browsing through magazines can flip to any page in any order they desire, while using the power of hyper-linking, web users can replicate this nonlinear reading method to move from page to page or section to section (Sklar, 2000). McGovern and Norton (2002) pointed out that on a well-designed website users could find a document or page in a number of ways. They summarized 13 different navigation options in which although not all of them are applicable to every website, a quality website should always offer a range of navigation aids (McGovern & Norton, 2002). This coincided with the suggestion of a variety of hyperlinks that accommodated the connectedness stated by Ha and James (1998).

4) Information collection, meaning registration at websites and visitor counter. Beech, Chadwick and Tapp (2000) emphasized a marketing point of view that the move from atom-based business to BIT-based business featured by commercial use of the Internet would necessitate a change towards information-based marketing, where the interactive exchange of information and the content, quality and speed of responses could be a source of competitive advantage. Registration was seen as a lead to relationship marketing and pointed to database building (Beech, Chadwick and Tapp, 2000).

5) Reciprocal communication, meaning five response mechanisms: email, toll-free number, order or purchase mechanisms, survey and discussion board that consumers could respond to the website owner or discuss with other consumers such as chat rooms. Discussion boards (also known as bulletin boards, newsgroups, forums, discussion groups) are more casual than email mailing lists (McGovern & Norton, 2002).

Among the split five dimensions, information collection and reciprocal communication are called source-oriented and higher levels of interactivity because they involve direct, two-way exchange of messages between the communicator (source) and the web audience (Ha & James, 1998). Playfulness, choice and connectedness are called audience-oriented interactivity because the audience plays a major role in the communication process and source has no direct bearing (Ha & James, 1998). They also assumed (1998) that general consumers may appreciate audience-oriented interactivity more than source-oriented interactivity because source-oriented devices involve such risks as infringement of privacy or disclosure of identity. They examined these five dimensions of interactivity respectively at

110 business websites in America and found the most prevalent dimension of interactivity in business websites was reciprocal communication (Ha & James, 1998).

Many sports have already initiated Web sites with all or some of interactivity capabilities. Sports sites such as the National Football League (www.nfl.com), National Basketball Association (www.nba.com), and Australia Football League (www.afl.com.au) have emerged with abundant interactive and multimedia components (Turner, 1999).

Generally, websites that offer registration for promotions do so with high motives: to promote interest and enthusiasm about the site (Stout, 1997). Four beneficial reasons to offer user registration to readers (Stout, 1997):

- To restrict access to private or confidential content
- To enhance site revenues by selling premium content
- To promote the site to encourage return visits
- To enhance site revenues by selling mailing or telephone lists

ESPN offers a wealth of sports-related information as well as content that has particular value above and beyond the scores of the latest game by registration (Stout, 1997).

Pines (1999) adopted Ha & James's definition about the interactivity to test 113 local commercial television network websites and found that stations were at the beginning stages of offering different types of interactivity except for connectedness through links. This study also used Ha and James's definition as a working model to test the levels of interactivity on sports television network websites because the measurable five dimensions were better to simplify the complex application of interactivity features on the web. The categories and variable s for interactivity levels in the code sheet were based on Ha and James's measurements tested on business websites and Pines's measurements tested on commercial television network websites.

E. Advertising

Schiller (1999) evaluated the opportunities and challenges brought by the Internet and technologies to Webcasters who see the Internet as a nascent media platform to concentrate and

stabilize relations between program services and audiences. Although a succession of efforts had been made to realize this goal in the ways of utilizing browser software, so-called push services, blockbuster programming investments, exclusive licensing agreements, content co-branding schemes, site aggregation into thematically coherent networks, and an emerging top-ten obsession with destination or gateway Web sites, the fully fulfillment of commercial networked model was relied on advertiser sponsorship (Schiller, 1999). Media was becoming to depend on advertiser sponsorship. Schiller's illustration to Chrysler example in which Chrysler and its advertising agency BBDO Worldwide were pushing magazines into a tough and awkward situation where each and every issue carrying Chrysler advertising was required a written summary outlining major theme/articles appearing in upcoming issues otherwise the ads spending would be cut dramatically (Schiller, 1999). Along with the emerging of Web use by most media outlets, the Web had been believed by many people as prime real estate for more comprehensive enlargement of advertiser sponsorship (Schiller, 1999). In cyberspace the line between advertising and editorial matter was being further eroded through a sprawling series of joint ventures and cross-promotions that link advertisers directly with content creators (Schiller, 1999).

Sponsors were seeking stable access to specific and most-needed audiences in "Internet communities" populated by steady Netizens, so sports and computer games were seen as handful of "old-standby" program genres with a demonstrated global popularity (Schiller, 1999). Schiller listed a series of numbers to illustrate how online developers sought out sports and game properties in order to build audience and draw advertising money: world sport sponsorship expenditures soared between 1989 and 1996 from around $3 billion to nearly $11 billion annually; the National Football League Web site drew 360,000 users on each of the two days of the league's college draft early in 1998 (Schiller, 1999). Forester Research predicted that total expenditure on digital media would grow rapidly to about $42 billion by 2005 as the number of consumers in digital environments grows worldwide (Black, 2001). Scholars as well as practitioners are trying to figure out how to maximize this new medium (Eighmey & McCord, 1998; Rogers & Thorson, 2000). Three major paradigms are approaching the Internet advertising research. A great deal of research has focused on the structures of advertising (Rogers & Thorson, 2000). The characteristics of ads are identified and classified in structure approach (Bucy, Lang et al., 1999; Miranda & Ju-Pak, 1998). A number of scholars are using the functionalist approach to identify reasons for Internet use (Rogers & Thorson, 2000). The third approach, represented by Cho, is information processing focused on the examination of what variables

influence voluntary exposure or clicking of banner ads and of how individuals perceive and process online ad-based message (Rogers & Thorson, 2000; Cho, 1999).

1. The functionalist approach

The long history of functionalist theories has tapped into the fields of psychology and mass communication. A fair number of conceptions, models, and themes are focusing on the web users' gratification and motives for Internet use (Stafford & Stafford, 2000; Rogers & Thorson, 2000). This study was from the structure's perspective as opposed to functionalist's perspective. Therefore this functionalist approach was not considered in this study.

2. The structure approach

Compared to the functionalist approach that is useful for explaining how individuals understand the website, the rational of the structure approach is to give out a satisfied explanation of what factors are making up the Internet environment. The bottom line, from the approach of structure, is to assume that any control the advertiser can exert in an interactive environment will take place on a structural level (Rogers & Thorson, 2000). In an interactive advertising model (IAM) offered by Rogers and Thorson in 2000 that incorporates functionalist approach, structure approach and information processing approach three basic structural components have been pointed out (Rogers & Thorson, 2000). They are ad types, ad formats and ad features.

a) Ad types

Rogers stated that in Thorson's work in 1996, a useful taxonomy about ad types that could be applied to any medium including the Internet was proposed as product/service, public service announcement, issue, corporate and political (Rogers & Thorson, 2000). The following five ads types were part of code sheet.

(1) Product/service: The focus of this ads type is a product brand (e.g. Nike, Hanes) or a generic product (e.g. coffee, cheese) or a service (e.g. Sprint long distance service) (Thorson, 1996).

(2) Public service: These commercials focus on information that is generally thought to improve lives or health (e.g. driver ads, safe sex campaigns, seat belt appeals) (Thorson, 1996).

(3) Issue: ads in this category focused on positions taken by corporations, individuals, or institutions on controversial issues (e.g. gun control law in Congress, antiabortion ads, smoker's rights ads) (Thorson, 1996).

(4) Corporate ads (or those that tout the favorable qualities of companies themselves): for example, IBM is the company that listens; G.E. brings good things to light (Thorson, 1996).

(5) Political: this focuses on reasons to vote for individuals running for political office (Thorson, 1996)

b) Ad formats

The Internet has the capacity to support a number of additional ad format, some of which can't be found in traditional media (Rogers & Thorson, 2000). According to the Interactive Advertisement Bureau (IAB), a leading commentator on the online advertising industry, currently there is a wide array of vehicles open to potential online advertisers-banners, sponsorships, interstitials, superstitial, pop-ups, e-mail, splash-pages, websites, hyperlinks and etc. (as cited in Jacobson's Study, 2003). Rogers in his work cited number from IAB saying that 55% of all online ads are formatted as banners, 37% are sponsorships and 8% are formatted as hyperlinks (Rogers & Thorson, 2000). The following ad formats were part of code sheet.

(1) Banners: At the end of 1995, advertisers were commonly putting up a banner ad in a content area, such as newspapers and magazines, or setting up their own web pages. Along with several forms of advertising in digital environments have emerged, industry reports indicate that the majority of digital advertisements are banner advertisements (Cho et al., 1999; Hoffman et al., 1995). These horizontal ads, typically stripped across the top of Web pages, at the time were a direct marketer's dream. Along with the more Internet ads appear, the more negative effects of Internet advertising are bothering the advertisers and marketers. Most advertisers, site owners, and related companies offering services and

selling software generally agree that the effectiveness of an ad banner depends on four primary criteria (Stout, 1997):

- The relevance to the reader's interests
- The quality of the banner graphic itself
- The number of times readers have seen the banner
- The placement of ad banners on a page

The banner usually is used for corporate logos, navigation aids, disclaimers and other information which shouldn't be scrolled with the rest of the document (Raggett, Lam & Alexander, 1996).

(2) Pop-up: Pop-up window often bother users' browsing web pages. But the users can stop seeing pop-up advertisements in four ways: First, one can simply avoid visiting sites that use pop-ups. Second, users can close the windows as they appear. Third, users can disable JavaScript and ActiveX in their Internet browsers. Finally, users can get software to control pop-up windows (Goode, 2002).

(3) Interstitial (Splash page): There are many differences between Interstitials and Pop-ups. Interstitial seems less interruptive as they run in between the users are waiting the next screen. But unlike Pop-up that can be controlled by users, interstitial screen cannot be closed as there is no "exit" option (Rodgers & Thorson, 2000).

(4) Superstitial: Although similar appearance and function with Pop-up and Interstitial, Superstitial has one distinction with the other two types. That is, if the user clicks off the site before a Superstitial finishes loading, the ads won't play.

(5) Advertitial: An advertisement styled to resemble the editorial format and typeface of the content in which it runs. Often generates higher response rates.[12]

(6) Sponsorship: This growing popularity in advertising that is to associate popular websites with specific brands is more common in sports industry where corporations hurry to hook their products or service to sports stars and hot competitions. Then when the news

[12] http://www.adglossary.com/

reports on sports event bombard national and local media outlets, the sponsors also become the attention. A case is Hi-C, the popular fruit drink produced by Minute Maid Co. in Houston, a unit of Atlanta-based Coca-Cola Co. For its first online campaign, Hi-C tested a partnership with children's content site MaMaMedia Inc. Hi-C sponsored the Power-Up Club, a children's game area on the site, and advertised the sponsorship online in other areas of the site (Rewick, 2000). Rick Zuroweste, Minute Maid's marketing director kids beverages thought that the most efficient Internet strategy for our brand was to identify sites that were destination sites for kids, where kids were going to have fun and learn (Rewick, 2000).

(7) Hyperlink: Similar to sponsorships in that they generally take up less space than other ads formats such as pop-ups or banners, hyperlinks are embedded in the content itself (Rodgers & Thorson, 2000). Some researchers suppose that although there are no specific studies on the psychological effects of hyperlinks, the negative effects similar to too many clickable surfaces that will decrease the attractiveness (Coyle, 1997) may come out (Rodgers & Thorson, 2000).

(8) Email: More like a low cost but efficient direct marketing, opt-in email is an important part of online advertising mix. In advertising parlance opt-in means a user has deliberately signed up for a marketer's mailing list (Rewick, 2000). A case is Lifeminders Inc., an e-mail marketer in Herndon, Va., has one of the highest average click-through rates 6% according to analysts who credit Lifeminders' success, in part, to highly targeted e-mails, which have translated into a higher level of customer retention (Rewick, 2000).

(9) Website: Websites afford not only as many as online ad formats but also greater opportunities to create an emotional experience (Brill, 1999; Rodgers & Frisby, 1998, Rodgers & Thorson, 2000). Users almost always seek out a website of their choice, presumably to fulfill a motive (Rodgers & Thorson, 2000).

In this study, the hyperlink to advertiser's own website was considered one of on-line advertising' objective features. So website wasn't coded here repeatedly.

(10) Others: While advertisers continue to experiment with different-size banners and buttons, they also are trying out novelty items, such as cursors that are shaped like a corporate logo (Rewick, 2000).

c) Ad features

Rogers and Thorson (2000) identified objective ad features (advertiser –controlled) and subjective ad features (consumer-controlled) in the all advertising media environments including print, broadcast and Internet. At the very core of web-based advertising is the banner ad (Stout, 1997). Parameters to rotating banner ads are the entry and exit style (fade in/out, wipe up/down etc.), shadow colour and depth, text fonts and colours, text scrolling and traversing, separate URLs to associate with each banner (Stout, 1997).

Bucy, Lang et al. (1999) analyzed Internet advertising in terms of its formal dimensions and interactive links that would draw attention to websites and provide navigational aid. The movement including colour changes, animation, blinking text or image and scrolling text or images in the banner was probed (Bucy, Lang et al., 1999). The ad position in the page body was also coded (Bucy, Lang et al., 1999). Advertisement was defined as cycling and non-cycling advertisements (Bucy, Lang et al., 1999).

As many researchers has recognized, media including the web are not inherently interactive (Pavlou & Stewart, 2000; Cho, 1999; Rogers & Thorson, 2000; Hoffman & Novak, 1996), it is ultimately the users who determines whether interaction actually occurs, and whether advertising is or is not interactive (Pavlou & Stewart, 2000). Interactivity usually occurs in the level of target ads even though banner clicking is the initiation of the interactivity (Cho, 1999). Various consumer's activities in target ads well-illustrate two dominant dimensions of web advertising interactivity- 1) human-message interaction which can be illustrated by searching for information and 2) human-human interaction which can be illustrated by providing feedback or personal information for the advertiser (Cho, 1999). In this study every ad found on the web page was clicked through to confirm its validity. The further investigation that would be beyond this study was not continued.

3. Information processing approach

Advertising exposure in traditional mass media (e.g., newspapers, films, radio and broadcast TV) is involuntary and/or incidental because even though people can read a headline and then decide

to continue reading ads, continuing reading ads does not require any extra action with more commitment (i.e., clicking and waiting for the full download) (Cho, 1999). Indicated by Cho (1999), Internet advertising exposure, in contrast, can be either involuntary or voluntary depending on the commitment (i.e., clicking through) web users may make when reading an online ads. For example, banner ad on the web is just like traditional passive form of non-interactive advertising unless they are clicked and more users go into the separate target ads (Cho, 1999). As long as voluntarily perform an action (i.e., clicking banners) to see the content of advertising messages, banner ads exposure is becoming more active and intensive than passive exposure without voluntary action. In the sense, Cho (1999) stated that Internet advertising exposure is more voluntary or sought-out than traditional media because it requires more commitment with voluntary action.

Rogers and Thorson (2000) assessed this approach focusing on stimulus structure of Internet ads. Stated by Cho (1999), the opportunity to process or being exposed to banner ads exists and is held by web users. He tested several variables that might mediate this opportunity through a between-group experiment involved a total of 203 undergraduate students and then got several interesting and positive results. In the case of banner ads, attention-getting or curiosity-generating peripheral cues that are including novelty or contrast-related components of banner ads, such as large-sized banner, bright colors and attention-getting animation got proved (Cho, 1999). Another mediating variables affecting involuntary exposure to banner ads is the position of banner. The chance is that information consumers are looking for in the vehicle is located at the top or middle of the website so that consumers don't have to scroll down to the bottom of the site (Cho, 1999). More interestingly, at the example of IBM Thinkpad ad placed on C/Net site as well as on the ESPN SportsZone site, the result shows that although people have more favourable attitude toward the ESPN SportsZone site, they are not more likely to click IBM Thinkpad ad (Cho, 1999). This indicates that ads placed on a specific advertising vehicle are more likely to be read by the audiences of the vehicle when product categories of the ads match with the contents of the vehicle (Cho, 1999).

Although Cho's method could not be followed in this study, his research results were quite interesting and useful to be considered as trigger of clicking banner ads and ignition of interaction between web audience and advertisers or between audience and message. In other words, this study was only able to record the very beginning of web advertising as opposed to probing the detailed

processing of interaction between audience and message or advertiser. IAB (the Interactive Advertising Bureau) looked at the advertising campaign for the launch of McDonalds Grilled Chicken Flatbread Sandwich to determine the impact of individual ad sizes, as well as the incremental effect of each format in conjunction with and over offline (TV) advertising, in influencing McDonalds branding goals[13]. The research results demonstrated that larger online ads perform better in communicating brand attributes. Therefore, ad objective features including its position, size as well as the type of product or service advertised proving whether relevant or not were coded. The product category that advertisement represents was coded as well.

[13] New online ad size research reinforces "bigger is better" mantra, Study Examined Ad Campaign Launching the McDonalds Grilled Chicken Flatbread Sandwich, IAB Press Release, June 3, 2003

Chapter 3

METHOD

I. Research design

The purpose of this study was to understand how sports television network was utilizing World Wide Web, so the focus was on the content of sports television station's websites. The previous studies of web page complexity ranging from multimedia features to the interactivity, specially, the major reference by Bates & King (1995 & 1996) and Pines (1999) examining the web use of American television stations, are providing good guideline to make this study which focused on the content analysis of Canadian Sports television network websites. Method of content analysis was set forth to achieve the goal of the study. The analyzed subject in this proposed study was sports coverage on Canadian television network website.

A. The unit of analysis

Ha and James (1998) and Bucy et al. (1999) pointed out that the home page served as "the front door" of the entire Website and providing consistency across the sample (Kenney, Gorelik & Mwangi, 1999). Bates and King (1996) evaluated the entire site. In the pilot period, the researcher found out that the second level, the third level and levels later on simply opened the full story and kept the main menu and options on the home page. So it was not necessary to code the entire website. Thus, the unit of analysis in this study was the homepage. Suggested by Ha and James (1998), while analyzing the home page, the researcher opened all the hyperlinks in the forms of underscored text, icons, or pictures to determine the nature of hyperlinks.

Compared to exclusive sports coverage on sports specialty channel, sports news broadcasted on general network was the only one part of massive news ranging across from business, entertainment, finance, technology to community, careers, personals and etc. In other words, the sports news on general network usually came up with many other choices and links that contributed to network and sister newspaper or magazine, and kept constituency across the entire website. The first page of sports news coverage was buried under the top bar menu or side bar menu, minority of sports coverage was linked by a photo icon on the home page (e.g. CH Victoria). The distinction and consistency between sub-site and site pointed out by Jakob Nielsen was a conceptual basis to consider

Sports sector on general network website as a sub-site. Sports sub-site could be called a home environment for sports fans within a larger and more general site. Also, most sport sub-sites had a single page that could be designated the home page of sports sub-site. Therefore, for those network websites having sports sub-site, the home page of sports sub-site was coded as opposed to the home page of the entire site. For sports specialty channel, its home page was the unit of analysis.

Although it was the home page of sports sub-site within general television network website to be coded, the extent of what types of content, presentation mechanisms and interactivity was seen as rich as home page of sports special channel website. The question of whether the equity between the sub-site and the entire site exists was not a hang-up because through pilot study some sports sub-sites had appeared rather high integrity and shown the ability to contain heterogeneous information across many sports such as hockey and football. But during the early stage of this research another question of whether or not non-sports information and web function found in sports sub-site that looked rich and accommodated by parents site should be coded was really a struggle originated from the different nature between sub-site and entire site as well as between general network site and sports special network site. If looking back the origin and characteristic of general network and its sports coverage, it is not hard to understand why the current sports presence was brought and maintained by network as a part of web content instead of an independent sports appearance because the sports broadcast news on the network itself is not independent either. And some network already built sports specialty banner under the same network banner such as CTV built TSN. Then going back to the original coding purpose, which intended to include every component on sample website, the researcher finally decided to code each link whatever it is related to sports or not appearing on the sports sub-site. So the above question was turned into what categories those non-sports links were supposed to belong. The followed section of "The variables, the criteria of each category, and coding procedures" would address this problem in detail.

B. The variables, the criteria of each category, and coding procedures

Indicated by the review of literature, the content of network site could be split into five basic areas. This research made artificial distinctions among these five areas and categorized characteristics of each of five areas into the separation of variables. A coding sheet was used to collect the data which started with the basic demographic information including the name of station, its location and URL.

The coding person and date were recorded as well. The coding sheet was then preceded on a series of variables grouped in the followed categories:

1. *Design of home page*

Screens: The number of screens to show the entire home page was counted to get an understanding of how many pages the website was currently having.

Background colour: According to previous review of literature, white colour as background was recommended by most studies. The coding of this viable was descriptive to get an understanding of averagely what colour was using by television websites.

Navigation system: Although in most cases measuring the quality of the navigational ease of a Web home page was based on a user's perception of being able to readily find the needed hyperlinks to move around the Web site (Zhang, Keeling & Pavur, 2000), the principles and components as being important to the quality of navigation use identified by web designers and researchers (Zhang, Keeling, & Pavur, 2000; Huizingh, 1999; Raggett, Lam & Alexander, 1996; Sklar, 2000; McGovern & Norton, 2002) were able to help users find information easily and quickly. The categories was set forth as followed:

Hierarchical structure

Ad hoc

Sub-site

Pull-down menu or pop-up menu without opening another page

Navigation aids-table of content or index or site map

The browed path was coded to determine the navigation quality

The presence or absence of these six components was coded. The top navigation systems were determined based on the number of the above six categories used for navigation system on the home page.

- The graphic or text-based navigation bar was coded to focus on the description of averagely what kind of navigation bar sports coverage is utilizing.
- The presence of frames was a controversial topic argued by many researchers. In this study frames was considered the negative use and would reduce the navigation quality.

- Based on the suggestion of Sklar (2000), the short-width text was easy to read without horizontal scrolling. The need to scroll from the left to the right would be minus the attractiveness of design.

Layout: Most current information would be better to be presented in the center of the viewer's attention (Sklar, 2000). A common layout was icons in the right column highlighting the featured items, consistent navigation choices and the company's identifying logo are at the top of the page, while the left column holds secondary-level links. The layout was coded to reflect if this common sense was using on sports coverage web page.

2. *Types of content:*

1) Informational content

a. *The rolling updated sports news:* Java language makes it possible to show up the latest news in the form of rolling text bar on an obvious page position, usually at the same height as viewer's eye on the top screen. TSN is showing its TV schedule in this form to get more attention.

b. *Top or highlighted sports news everyday and number of top sports news:* Some sports televisions were observed to highlight sports news with athlete or game's photo on the home page everyday. This action is really like what television stations often do on their home pages, that is, posting the most popular or latest launched programs on the most obvious position such as the middle and upper column of layout. It was believed in this study that the ability to publish more top news on site would be a standard to justify a site.

c. *Breaking news*: Some sports channel had a separate column devoted to breaking sports news.

d. *Sports features such as everyday tip, today in the sports history and etc.:* This small column contributing to knowledge of sports was observed to appear in some sports television websites. This study believed it useful to rich sports knowledge and flexible in size and position therefore it was no hurt to overall sports content offer but worth to remain.

e. *Sports headlines and number of them*: Literature review suggested that the amount of information such as headlines was one of determent of the sophistication of information website. The number of sports headlines in each sports home page in this study was observed to be the same everyday so that it could be recorded.

f. *Sports score:* Sports score was found out in many sports home page and believed to be the easiest way to get the latest result of popular games. Individual player or team statistics from season was hoped to be found out under each sub-site categories.

g. *Sports issue, or analysis, or editorials beyond the score and headline, or viewpoints from columnists:* Merely news reports are not enough for websites to compete the print world. Many fans are still looking for the point of views from columnists besides searching for news by them. The in-depth analysis or the connection with columnists would enrich the content and entrench the web advantage.

*2) **Transactional content***

Online store

Direct ordering

Merchandise catalogue

Ticket information

In general, scoring for the above four categories was done by assigning a '0' or '1' to represent the absence or presence of a link for a category element. Top web sites for transactional content were determined based on the number of categories used on sports home page.

3) Promotional content:

Although any appearance of information and its presentation mechanism on website could be considered as a way to encourage users to watch TV program or stick in website longer, the followed categories were believed in this study as more obvious promotion tools to advertise sports channel identity, and to guide users to watch TV purposely, and to keep users on site longer and return to site regularly.

a) Sports logo or letters that distinguishes sports coverage with Network content presented by Network logo was one of promotional tools.

b) TV schedule: TV schedule might be the most common content included on television websites. In this study only the presence or absence of sports schedule was coded.

c) Trivia games or contests, voting polls, or email list subscription, or giveaways that encourage users enter these areas regularly.

d) Download of pictures as screensaver

In general, scoring for the above four categories was done by assigning a '0' or '1' to represent the absence or presence of a link for a category element. Top web sites for promotion were determined based on the number of categories used on sports home page.

3. Presentation mechanisms:

Top sports coverage home pages were determined based on the number of categories used on websites.

a) Clickable graphics associated with sports information: All clickable graphics and the followed photos, blinking or scrolling text or image were considered as web enhancement to visual experience. But advertising graphics would not be counted in here.
b) Photos representing sports game or athletes. The others found on site were mostly relating to adverting in order to catch eyeballs and direct users to advertiser's own site.
c) Blinking or scrolling text or image associated with sports information (excluded advertising)
d) Audio including unsolicited, or live or archived
e) Video including unsolicited, or live or archived, or video capture
f) Animation
g) Music

In this study, clickable graphics, photos, blinking text were considered as simple presentation mechanisms. Audio, video, animation, and music were considered as advanced presentation mechanisms.

4. Interactivity

Five dimensions used by Ha and James (1998) were applied in this study as working model. In general, scoring for the following categories was done by assigning a '0' or '1' to represent the absence or presence of a link for a category element. Top web sites for interactivity were determined based on the number of categories used on sports home page.

1) The dimensions of playfulness.
    a) Trivia or contest
    b) Fantasy game
    c) Voting polls
    d) Giveaways
    e) Bundled entertainment zone: Some site highlighted contest and giveaways to encourage users to watch game. The presence of so-called entertainment zone or the like would be coded as a positive element of playfulness.

    If the contest had nothing to do with the network content, or led users out of site to enter the advertiser's website, it would not be counted

2) The dimension of choice in this study referred to
    a) User preferences (browser, colour, speed, language)
    b) Customizable news
    c) Searchable sports audio or video files
    d) Search engine for sports specifically
    e) Download capability

3) The dimension of connectedness defined in previous network website study did not fit very much in this study. Five types of link was redefined according to the actual sports page:
    a) Links to sports content related;

b) Links to other parts of network like syndicated programming, sister station, magazine, newspaper;

c) Links to third-party (advertising) site;

d) Links to other information than sports news within the site;

4) The dimension of information collection was coded as registration and visit account.

5) The dimension of reciprocal communication was changed little as well to fit the sports coverage analysis. All features found was classified into sports-related and non-sports.

During data collection in this study, a sort of bundled interactivity zone was found on some sports channel websites. Similar to different concepts of interactivity concluded by researchers in academic world, the focus of interactivity varied on each site. For example, MSNBC focused on in-depth analysis, Web specials like AV tour, and tutor by pro through 3D and AV support and etc. MSNBC named this zone "Interactivity Library". The interactivity zone on Leafs TV website aimed to build fans' involvement with team and loyalty online and offline. Therefore the presence of bundled interactivity zone was considered as a positive indication of site's interactivity design and would be coded as well as the above split five dimensions.

5. Advertising:

Each advertisement appearing on the home page or accompanying the home page download was checked for:

1) Types or categories advertising, e.g., automobile, computer and etc.
2) Formats including the most prevalent one banner and etc.
3) Objective features bearing on ads such as position, size, movement

II. Research Questions

The following list of research questions would answer a broad range of interests from content to formats. The first question was to address the general design features in the body of home pages.

The second through fourth research questions were to address how stations were taking advantage of the Internet technology through their websites to promote television programs and themselves as well, at the same time to meet sports fans' appetite of enjoying web life and encourage more interaction involved:

1. What formal features are being presented on home page by sports television stations?
2. What information is being presented on websites by sports television stations?
3. What presentation mechanisms are being used on websites by sports television stations?
4. What interactivity functions are presenting on websites by sports television stations?

Regarding the advertisement component on sports television network websites, the fifth research question was hoped to show the current types and categories each ad represents. The question of what types of ad is fitting with what media channel such as Internet is quite interesting and annoying to advertisers and marketers all the time. Cho found that ads placed on a specific advertising vehicle were more likely to be read by the audiences of the vehicle when product categories of the ads matched the contents of the vehicle (Cho, 1999). In terms of interactive ads that was most distinguishing characteristic on the web and should not be neglected, the 5th research question with hope to touch upon the interactivity features must be designed carefully because the conventional online ads measurements that focus on marketing mix features incorporating press releases, advertisements, free gifts and pricing information (Briggs & Hollis, 1997) and options given to customers on corporation websites are obviously distracting this proposed research attention and thus was beyond this study. The following question was refined into the analysis of sports television network website with the caution of not crossing to scale of audience research. There are indeed some research findings about objective structure features of online ads such as size and the animation making difference in terms of people's responses to them when viewed in the context of banner ads (Li & Bukovac, 1999; Rogers & Thorson, 2000).

5. What ads types and categories, ads formats ads represent can be found on sports television network websites? And what objective features to facilitate interactive advertising are being used on ads on sports television websites?

As far as the extent of sports news being involved and the way of sports news being distributed on web, there were four networks that cover sports news and information as well as news in other industry and ten sports specialty networks. 7 independent channels that had obviously weak power compared to networks in terms of signal coverage and development scale would not be considered right here in order to keep equity among samples.

6. What is the difference in terms of home page formal design, types of content, presentation mechanisms, interactive functions, the practice of online ads between sport specialty network websites and general network websites?

Among those 14 networks, only CBC is the public broadcaster. The 7th question focused on the differences between CBC and other 13 private broadcaster websites in those five areas:

7. What is the difference in terms of home page formal design, types of content, presentation mechanisms, interactive functions, the practice of online ads between public broadcaster website and private broadcaster website?

III. Sampling and procedures

To address the research questions proposed above, a thorough sample of sports channel websites to show the current trend needed to be sort out from Canadian websites. Limited by the knowledge of French, French television websites were not considered in this study. A purposive sampling procedure is adopted. Due to shortage of the existed list of Canadian television stations that air sports programs, a multiple phase procedure was used to search for valid sports coverage sites.

1) The first source was 2002-2003 Media Digest by Canadian Media Directors' Council that summarized televisions and networks in Canada. The followed networks that broadcast sports program on air and online was very useful as an index to search for valid samples.

a) National networks: CBC English, CTV
b) Regional networks: Global Television Network
c) Digital special networks: MSNBC
d) Sports specialty networks: TSN, Outdoor Life Network Canada, Sportsnet, The Score

e) Sports Digital Specialty Networks: ESPN Classic Canada, NHL Network, Leafs TV, Raptor NBA TV, Fox Sports World, Xtreme sports

2) The second resource was Canadian Association of Broadcasters. The CAB is the national voice of Canada's private broadcasters, representing the vast majority of Canadian programming services, including private radio and television stations, networks, and specialty, pay and pay-per-view services:[14]

a) Clicked "Links" to "Television" (http://www.cab-acr.ca/english/links/television/default.shtm) and list 93 TV channels distributed in 10 places-Alberta, British Columbia, Manitoba, New Brunswick, Newfound, Nova Scotia, Ontario, Prince Edward Island, Quebec and Saskatchewan.
b) Linked to channel websites in 7 provinces and see if they have the sports sector or to which sports network they are linking.
c) Clicked "Links" to "Specialty" (http://www.cab-acr.ca/english/links/specialty/default.shtm) and find out sport-related channel. The word description is "Sports" or syndicated words.

3) The third resource was Broadcast Dialog Directory, which has complete information on stations, associations and suppliers in Canada

a) Linked to http://www.broadcastdialogue.com/directory_simple.asp
b) Linked to TV stations category. http://www.broadcastdialogue.com/directory_provlevel.asp?searchLevel=province&searchCategory=TV%20Stations
c) Clicked 10 places separately.
d) Regarding advertising, each ad showing up while opening the website and was coded. Also, each ad displayed on the home page was clicked through to confirm its live link. Further, any ad showing up along with clicking on each hyper link on the home page was coded as well.

The preliminary scanning process found out:

[14] http://www.cab-acr.ca/english/default.htm

a) 38 channels had no sports link or live websites in which corporate owners include Acadian Communication Ltd., Chum Ltd., Rogers Broadcasting Ltd., Corus Entertainment Inc., Craig Broadcast Systems Inc.

b) 7 independently affiliated stations had independent websites and sports coverage (Table 4).

The coding procedure and detailed technical information were articulated in the protocol (Appendix: coding protocol). Two coders participated in the session of coding training to code 5 sites in order to gauge inter-coder reliability. For some special days, e.g. Friday or Saturday, Sunday if indicated by the TVB report "Public TV Basics 2001-2002",[15] intensive coding was proceeded.

The same web page is viewed differently at different screen resolutions, for example, users at 800 x 600 may see full content in one screen without the need to maximize the browser to full screen, whereas those working at 640 x 480 may need to scroll the bar to see full content if content does not fit on their screen (Sklar, 2000). Although user screen resolution was a factor in which this study has no control, to keep the consistency throughout the whole coding process, the content was measured using IE browser to open the web address. Each web page was enlarged to fill the entire screen to standardize the analysis and estimate the overall length of the page. Data were entered using Microsoft Excel then analyzed by SPSS for Windows.

IV. Pilot study

1. Refine the code sheet:

   In the period of pilot study from July 16th-July 30th, each information was recorded its location on the web page and page-down number. This process turned out that the matter of presence or absence appeared more importantly than the location of varied function. There was not that different in terms of function location among samples. Therefore the emphasis of code sheet and coding process was shifted to either presence or absence of variables. The variable value was assigned one or zero to stand for presence or absence of types in each of categories.

2. Reframe the samples:

[15] http://www.tvb.ca/TVBasics2001-2002public.pdf

It was observed that most local commercial television network web sites linked to their network websites. Whatever national network, regional network, or specialty network, each local network owned by them usually did not run independent website. Then it was understandable that sports coverage was found on network website that embraced international, national and regional sports games and teams (see Appendix 1, 2, 3). 7 independently affiliated stations that had independent websites and sports coverage were in independent network group compared with network group (See Appendix 4). If independent stations had no its own sports news but links to national sports channel, it was counted into network group. For example, affiliate RD TV owned by CanWest and CBC in Red Deer can only link to GlobalTV national sports, so it is dropped in the network group. And, CanWest affiliate CH Montreal and CH Hamilton also link to GlobalTV national sports although they are independent stations.

1) General networks vs. sports specialty networks: 4 general networks covered sports news and information in the form of sports sub-site (Appendix 5). WTSN stopped website running on September 30. 2003 so it was excluded in this study either. 10 sports specialty networks provided full service to sports (See Appendix 6).
2) Public broadcaster networks and private broadcaster networks: CBC was the only public broadcaster. CTV, Global TV, MSNBC, and 10 sports specialty networks were private broadcaster networks. In order to keep equity among samples 7 independent channels that had obviously weak power compared to networks in terms of signal coverage and development scale were not considered although they were private broadcasters.

RDS is the world's first French-language sports channel. Limited by the knowledge of French, it was not coded. Therefore, the total number of valid websites was 21. 21 home pages were coded.

3. Inter-coder reliability:

Inspired by research done by Zhang, Keeling and Pavur (2000), during the pilot study, items in the instrument were further examined to ensure that the content of sports coverage on television network website was coded completely in a proper way and was interpreted as designed. One primary researcher was throughout this study. The second coder helped to determine the reliability of inter-coder and the coding sheet itself. An inter-coder reliability test

of 5 of 24 sites resulted in an agreement from 79% to 84%. At the beginning, the inter-coder reliability was quite low because two coders had disagreement on the definition and classification of some categories. The initial instruments were modified after discussion. After all confusion was clarified, the final inter-coder reliability was increased to 84%.

V. Reliability

Reliability in content analysis was defined by Riffe, Lacy and Fico (1998) as agreement among coders about categorizing content. Because content analysis as a research tool is based on the assumption that explicitly defined and accepted concept definitions control assignment of content to particular categories by coders, achieving reliability in content analysis begins with defining the categories and subcategories that are relevant to the study goals, then coders being trained to apply those definitions to the content, process ends with the assessment of reliability through coder reliability tests (Riffe, Lacy & Fico; 1998). The way to achieve reliability is to articulate the definitions of categories clearly whatever they are simple or complex in a content analysis protocol. According to Riffe, lacy & Fico (1998) and McMillan (2000) content analysis protocol should be organized and presented in a coherent and organized manner. This study protocol provided each variable and the technical information needed to categorize the content into each variable.

One difficulty in this study was the construction of validated instrument as what Zhang, Keeling and Pavur (2000) had realized that there was no standard to construct measuring what good Web designs should contain. In many cases the items for the instrument were developed by investigating a number of sources and obtaining feedback from experienced Web developers and users in the pilot study (Zhang, Keeling & Pavur, 2000). Suggested by Zhang et al., (2000) and Pines (1999), content validity was established by a literature review of articles examining various components about website design. Among the literature review, the concepts of information architecture posed by Rosenfeld and Morville (2002) provided good theoretical support to set criteria to judge what a good website is about. And the theories provided by other researchers such as Bucy, Lang & Pines (1999), Ha and James (1998) and etc. were supportive basis for this study.

Also, according to Riffe, Lacy & Fico (1998), the researcher must assess the degree to which the content definitions and procedures can be reliably applied. A week of coding training session was proceeded before the formal start of collecting data. During this session, the samples were reviewed randomly to identify the website components according to coding protocol. Once it was believed that

an exhaustive list of sports coverage components on stations websites had been stated clearly in the coding protocol, as well as the protocol fitted coding sports coverage, formal coding process started. Besides the refinement of content analysis protocol, a formal coder reliability test will be conducted too as an indicator of when to proceed with the study (Riffe, Lacy & Fico; 1998).

To gain stable and valid data on coding subject, each website was accessed for the first coding and then visited frequently for monitoring any change. Additional and intensive coding process was done during game seasons with expectation of more formal features to happen.

Chapter 4

FINDINGS

I. Results for Research question 1: Design of home page

The total observation period was from August 1st to October 31st 2003.

RQ1: What formal features are being presented on the sports home pages of television station websites?

Formal features were classified in four categories: screen, background colour, navigation system, and layout.

1. Screen: Table 1 showed that home pages averaged 2.974 screens of content in length. More than half of web sites (66.7%) presented three or fewer screens of content. The range for number of screens was 2 to 4 (mean=2.976, median=3, mode=3). The use of fewer numbers of screens to show the entire home page indicated that stations were incorporating sports coverage in a tight structure. However, the judgment of this structure depended on what types of content are included on home page. If some home page is short of information, the fewer screens is just the result of poor Web content, thus it becomes no meaning to use fewer screens.

Table 1 Number of "Page-downs" from top to bottom

Screens	Percent of websites	Number of websites
Three (3)	28.6%	6
Four (4)	23.8%	5
Two (2)	23.8%	5
Two and half (2.5)	14.3%	3
Three and half (3.5)	9.5%	2
Total	100	21

2. Background colour: The most common background colour overall was white (81%), followed by black (4.8%) or blue (4.8%) or grey (4.8%), multi-colour (4.8%).

3. Navigation system: Table 2 showed that all home pages were hierarchical navigation system that was the most traditional navigation in current Web design. The useful aids such as site map or table and other components such as pull-down menu were not adopted by majority of home pages. 9 of 21 home pages (42.9%) had sub-sites to provide more range of sports news. 85.7% (18) of sites were using text-based navigation bar. One satisfactory finding was no negative navigation horizontal scrolling found out. Table 3 showed the rank of home pages that have sub-sites based on numbers.

Table 2 The presence of components in navigation system

Navigation System		**Percent of websites**	**Number of websites**
Positive	Hierarchical navigation	100%	21
	Sub-site	42.9%	9
	The browsing path	38.1%	8
	Pull-down menu	38.1%	8
	Navigation aids (site map, or index, or table)	38.1%	8
	Ad hoc	9.5%	2
Negative	Frames	4.8%	1
	Horizontal scrolling	0	0

To get a better understanding of which home page was doing well with respect of navigation system, a plus score was assigned to presence to each positive category including hierarchical system, sub-site, ad hoc, pull-down menu, navigation aids, and browsing path. A minus score was assigned to presence of each negative category including frames and horizontal scrolling (see Table 3). Between two equal scored home pages the advanced rank was given to home page that had more sub-sites.

Table 3 Navigation rank of home pages based on number of categories used

Navigation Rank		Number of total navigation categories used
1	TSN	5 (52 sub site)
2	NHL Network	5 (31 sub sites)
3	MSNBC	5 (29 sub sites)
4	Outdoor Life Network	5 (13 sub sites)
5	ESPN Classic Canada	5 (2 sub sites)
6	Leafs TV	4 (42 sub sites)
7	Global TV	4 (11 sub sites)
8	CBC	4 (8 sub sites)
9	Sportsnet	3 (17 sub sites)
	Foxsport World	3
	Xtreme Sports	3
	The Score	2 (12 sub sites)
	Raptors NBA TV	2
	CH Victoria	2
	CHBC-TV	2
	CJOH-TV	2
	CTV	1
	CHAT-TV6	1
	CHON-TV	1
	CKWS-TV	1
	CKPR-TV	1

4. Layout: 14 home pages (66.7%) were top/bar/both. That meant, the most important news was put in the middle of page. The network logo and main navigation bar were on the top of page. The left bar was navigation menu. The advertising or less important content was in the right column of page. 5 home pages (23.8%) were top/bar/right. That meant, they didn't leave separate column to advertising or less important content. 1 (4.8%) home page put most information at the left column. The Score was the only site to put information at both left and right column under the top navigation bar.

About sports news timeline, 14 (66.7%) of the sites had updated within the last 12 hours. 7 (33.3%) of the sites could not have update news.

II. Results for Research question 2: types of content

RQ2: What information is being presented on the sports home pages of television station websites?

Table 4 was categories rank based on percentage of categories of information were used by home pages. To examine what types of content were emphasized by sports coverage on television home page, all information categories found on the home pages were classified into three items: informational content, transactional content, and promotional content

Obviously the emphasis on home pages leaned toward to providing promotional content and/or informational content. However, considering different nature of websites (i.e. some website devoted to team, other website was attached to a multi-purpose platform that served print and radio as well), this table was not saying promotion or information should be emphasized by each home page. It just showed a general picture of what types of content was found out on home pages. And before examine the other web features like presentation mechanisms and interactivity, it was still too early to conclude which site should or is able to offer better content than others do.

The average number of top or highlighted sports news was 3.43 (Median=3, Mode=0). No top or highlighted sports news was reported on 38.1% (8) of the sites. 23.8% sites had six or more top or highlighted sports news. Only 2 (9.5%) sites, Global and Sportsnet, had 10 top or highlighted news. 1 (4.8%) site, CTV, had 16 top or highlighted sports news. The range was 0 to 16.

Table 4 Categories of information used by home pages

Categories rank		Percent of websites	Number of websites	Classification
1	Sports channel logo or letters	76.2%	16	Promotion
2	Top or highlighted sports news	66.7%	14	Information
3	Sports program schedule	61.9%	13	Promotion
4	Game score	57.1%	12	Information
5	Sports headline	47.6%	10	Information
6	Sports features such as everyday tip, today in the sports history and etc	42.9%	9	Information
7	Sports issue, or analysis, or editorials beyond the score and headline, or viewpoints from columnists	38.1%	8	Information
8	The rolling updated sports news	33.3%	7	Information
9	Trivia games or contests	23.8%	5	Promotion
9	Fantasy game	23.8%	5	Promotion
10	Online store	19%	4	Transaction
	Voting polls	14.3%	3	Promotion
	Download of pictures as screensaver	10.5%	2	Promotion
	Giveaway	9.5%	2	Promotion
	Ticket information	9.5%	2	Transaction
	Station staff biography	9.5%	2	Promotion
	Breaking sports news	4.8%	1	Information
	Direct ordering	4.8%	1	Transaction
	Merchandise catalogue	0%	0	Transaction

The range for sports headlines was 0 to 13 (Mean=4.52, Mode=0). 57.9% (11) of sites had no sports headlines on the home page. Although CTV had the most number of top sports stories, it did not have any sports headlines. The number of top stories and headlines were added to indicate news richness on home page. Table 5 was the home pages rank based on the information categories and the number of top stories plus headlines.

Table 5 Site ranks on information providing

Site rank	Information categories and the sum of top news and headlines
TSN	6 (10)
Sportsnet	5 (20)
MSNBC	5 (15)
CBC	4 (16)
NHL Network	4 (13)
ESPN Classic Canada	4 (13)
Raptors NBA TV	4 (11)
The Score	4 (10)
Outdoor Life Network	3 (13)
Global TV	3 (10)
Leafs TV	3 (0)
CTV	2 (16)
CKWS-TV	2 (9)
CKPR-TV	1 (11)
CHAT-TV6	1 (0)
Foxsport World	0 (0)
Xtreme Sports	0 (0)
CJOH-TV	0 (0)
CJON-TV	0 (0)
CH Victoria	0 (0)
CHBC-TV	0 (0)

One finding was two independent stations, CKPR and CKWS showed the ability and interest to publish more sports news on home pages.

III. Results for Research question 3: presentation mechanisms

RQ3: What presentation mechanisms are being used on the sports home pages of television station websites?

Table 6 showed the presence of mechanisms in order of most commonly occurring to least commonly occurring among sites. Photo or image was found to be the most occurring presentation mechanism on sites. Other Web unique features such video and audio were used by few Web sites.

Table 6 Presentation mechanisms ranks among sites

Presentation		Percent of websites	Number of websites
1	Still photo or image associated with sports news	81%	17
2	Blinking or scrolling graphics associated with sports	61.9%	13
3	Unsolicited video, link to archived video, or link to live video, or video capture	33.3%	7
4	Unsolicited audio, or link to audio, or link to live audio	28.6%	6
5	Animation	14.3%	3
6	Music	0%	0

Table 7 was based on the number of presentation mechanisms used on Web. The presence of each category was summed to obtain a total score for each site. The number of clickable graphics associated with sports on each home page was counted. Except the richness of content, TSN, ESPN Classic Canada, Outdoor Life Network, and NHL Network were displayed in similar Web design. Leafs TV scored high because it was the only site that had animation mechanism besides other features such as audio and video it had. Sites might have more presentation mechanisms in deeper levels. However, Table 6 and Table 7 reported that the unique audio and video Web features were less used by sites. In contrast, a higher use of photos and graphics corresponded the finding of 1996 local television network websites in the U.S. by Bates et al. It indicated that sites were trying simple ways to incorporate visual elements onto pages.

Table 7 Sites rank of presentation mechanisms

Presentation Rank		Number of total presentation mechanisms used	Percent of total categories used
1	Leafs TV	5 (5 graphics)	83.3%
2	TSN	4 (14 graphics)	66.7%
3	The Score	4(13 graphics)	66.7%
4	ESPN Classic Canada	4 (11 graphics)	66.7%
5	NHL Network	4 (10 graphics)	66.7%
	Outdoor Life Network	4 (5 graphics)	66.7%
	Raptors NBA TV	3 (0)	
	CBC	2 (6 graphics)	33.3%
	Xtreme Sports	2 (4 graphics)	33.3%
	Foxsport World	2 (4 graphics)	33.3%
	CH Victoria	2 (3 graphics)	33.3%
	Global TV	2 (0)	33.3%
	MSNBC	1 (27 graphics)	16.7%
	Sportsnet	1 (6 graphics)	16.7%
	CTV	1 (3 graphics)	16.7%
	CJOH-TV	1 (1 graphics)	16.7%
	CHAT-TV6	1 (0)	16.7%
	CKWS-TV	1 (0)	16.7%
	CKPR-TV	0 (1 graphics)	0%
	CHBC-TV	0 (0)	0%
	CHON-TV	0 (0)	0%

IV. Results for Research question 4: interactivity

RQ 4: What interactivity functions are presenting on the sports home pages of television station websites?

3 sites - Leafs TV, The Score and MSNBC, had bundled interactivity zone on the home page. Instead of the record of quantity of each category under five dimensions, the presence or absence of each category was reported in order of most commonly occurring to least commonly occurring among sites (see Table 8). To get an overall understanding which site was doing well in offering more and diverse interactivity features, the presence of each category under five dimensions respectively was given a plus credit. The total credit of interactivity was 21 (See Table 9).

Table 8 Interactivity features ranks among sites

Interactivity		Percent of websites	Number of websites
Playfulness			
	Trivia games	23.8%	5
	Fantasy game	23.8%	5
	Bundled entertainment zone	19%	4
	Voting polls	14.3%	3
	Giveaways	9.5%	2
Choice			
	Search engine for sports specifically	38.1%	8
	Searchable audio or video	33.3%	7
	Incorporated upload capacity	28.6%	6
	Customizable news	19%	4
	Download of pictures as screensaver	19%	4
	User preferences (browser, colour, speed, language)	9.5%	2
Connectedness			
	Links to sports content related	100%	21
	Links to other parts of network like syndicated programming, sister station, magazine, newspaper	66.7%	14
	Links to third-party (advertising) site	61.9%	13
	Links to other information than sports news within the site	57.1%	12
Information collection			
	Registration to use parts of site	28.6%	6
	Visitor counter	0%	0
	Registration to use site	0%	0
Reciprocal communication			
	Sports network contacts	66.7%	14
	Sports bulletin board, opinion post location	28.6%	6
	Sports chat room	9.5%	2

Table 9 Sites ranks of interactivity features

Interactivity rank		Number of total categories used	Percent of total categories used
1	Leafs TV	14	66.7%
2	The Score	13	61.9%
2	TSN	13	61.9%
3	MSNBC	12	57.9%
4	Sportsnet	11	57.1%
5	CBC	9	47.4%
	NHL Network	7	33.3%
	ESPN Classic Canada	7	33.3%
	Outdoor Life Network	7	33.3%
	Xtreme Sports	6	28.6%
	Foxsport World	6	28.6%
	CH Victoria	5	23.8%
	Raptors NBA TV	5	23.8%
	CJOH-TV	5	23.8%
	Global TV	4	19%
	CTV	4	19%
	CKWS-TV	4	19%
	CKPR-TV	3	14.3%
	CHAT-TV6	2	9.5%
	CJON-TV	2	9.5%
	CHBC-TV	2	9.5%

V. Results for Research question 5: advertising

RQ 5: What ads types and categories, ads formats ads represent can be found on the sports home pages of television network websites? And what objective features to facilitate interactive advertising are being used on ads on the sports home pages of television websites?

1. Ad type: The most common look of ad type on the home page was product/service advertising (16 sites, 76.2% of total sites). Ads categories were distributed in quite diverse industries ranging from travel, bank, finance, real estate, education, automobile, to health, drink, food, and etc.

Only one issue advertising-a survey: who is the sexiest man in Hollywood, was found out when clicked hyperlinks on CTV sports home page. No site had corporate, public or political advertising.

2. Ad format: Banner was the most common ad format on home pages. 15 sites (71.4%) had banner ads on their home pages. 4 (19%) sites had pop-up. 5 (23.8%) sites had sponsorship. 4 (19%) sites had hyperlink.

Global TV web home page was found ten ads including Maple Leaf Dempesters, credit card, travel, PC health check, cell phone, Joy Pepsi, Molson Indy, Speed Stick, HP, security online. TSN was observed six ads including Expedia.ca, Smirnoff, Taylormade, Suzuki, Samsung, and Discovery.ca. Only one ad, Subway, was found in CBC during 3-month observation. No ad was found on ESPN Classic Canada, NHL Network, CHAT-TV6, CHBC-TV and CJOH-TV.

3. Objective banner features:

a) Position: It was understandable that the ad position on each home page would not be changed frequently. The total of 44 banners was found on the home pages. 9 (20.5%) were on the fixed bar on the top. 21 (47.7%) ads were above the fold. 14 (31.8%) ads were on one-page down page. One ad was twp-page down. One ad was three-page down.

b) Size: Similar to ad position on the home page, ad size on each position was also quite stable. Full banner that is 486 x 60 pixels was found the most look of the home pages (15 banners, 34.1% of 44). Button 1 that is 120 x 90 pixels regulated by IAB was found the second most look of ad size (8 buttons, 18.2% 44). 8 ads were in casual size that is not in ISA regulation. Wide skyscraper that is 160 x 600 pixels was found 5 (11.4%). Button 2 that is 120 x 60 pixels was found 3 (6.8% of 44). Skyscraper, half banner, vertical banner, square button was found only one ad respectively. The other ads size including micro bar, leaderboard, large rectangle, vertical rectangle, and medium rectangle were not found among home pages.

VI. Results for Research question 6: general network vs. sports specialty network

RQ 6: What are differences in terms of home page formal design, types of content, presentation mechanisms, interactive functions, practice of online ads between general network websites and sports specialty network websites on the sports home pages?

A. Design of home page

- The presence of hierarchical navigation, ad hoc, sub-site, pull-down menu and the browsing path that was assigned a higher score was seen in this study as a symbol of better navigation design than the absence of those navigation design that was assigned a lower score. Those variables were ordinal data and therefore nonparametric equivalent of the t-test (Mann-Whitney) was used to analyze the difference between general network websites and sports specialty network websites.

Table 10 Navigation elements ranks between general network and sports specialty network

Ranks

	General network or sports specialty network	N	Mean Rank	Sum of Ranks
Hierarchical navigation system	General network	4	7.5	30
	Sports specialty network	10	7.5	75
	Total	14		
Ad hoc	General network	4	7	28
	Sports specialty network	10	7.7	77
	Total	14		
Sub-site	General network	4	7.75	31
	Sports specialty network	10	7.4	74
	Total	14		
Pull-down menus	General network	4	5.25	21

	Sports specialty network	10	8.4	84
	Total	14		
The browsing path	General network	4	7	28
	Sports specialty network	10	7.7	77
	Total	14		

Table 11 Test statistics of navigation elements between general network and sports specialty network

	Hierarchical navigation	**Ad hoc**	**Sub-site**	**Pull-down menu**	**The browsing path**
Mann-Whitney U	20	18	19	11	18
Wilcoxon W	75	28	74	21	28
Z	0	-0.63246	-0.18028	-1.48113	-0.32914
Asymp. Sig. (2-tailed)	1	0.527089	0.856935	0.138572	0.74205

Table 10 and Table 11 showed that the mean ranks of general network vs. sports specialty network had no significant difference on navigation design including hierarchical navigation, ad hoc, sub-site, pull-down menu and the browsing path.

- The number of complete "page-down" and the number of sub-site were scale data therefore independent samples t-test was run to compare the difference between general network websites and sports special network websites.

Table 12 Group statistics of number of "page-downs" and sub sites between general network and sports specialty network

Group Statistics

	General network or sports specialty network	N	Mean	Std. Deviation	Std. Error Mean
Number of complete "page downs" to move from up to bottom	General network	4	3.75	0.5	0.25
	Sports specialty network	10	2.75	0.677	0.2141
Number of sub-site	General network	4	12	12.247	6.124
	Sports specialty network	10	16.9	18.794	5.943

Table 13 Test statistics of number of "page-downs" and sub sites between general network and sports specialty network

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of complete "page downs" to move from up to bottom	Equal variances assumed	0.816	0.384	2.652	12	0.021	1	0.3771	0.1784	1.8216
	Equal variances not assumed			3.038	7.643	0.017	1	0.3291	0.2348	1.7652
Number of sub-site	Equal variances assumed	1.24	0.287	-0.476	12	0.642	-4.9	10.288	-27.316	17.516

	Equal variances not assumed			-0.574	8.731	0.58	-4.9	8.534	-24.295	14.495

Table 12 and 13 showed that with respect of number of complete "page-down" to move from up to bottom, there was a significant difference between general network home page and sports specialty network home page (F=0.816>Sig.0.05). General network had more "page-down" number than sports specialty network on home page (t(12)=+2.65, p=0.021<Sig.0.05, both the lower and upper bounds are the sign of minus). With respect of number of sub-site, there was no significant difference between general network home page and sports specialty network home page (F=1.24 > Sig0.05, t(12)=-0.476, p=0.642>Sig0.05).

- The other dependent variables including navigation bar, background colour, frames, horizontal scrolling, and layout were nominal (categorical) data that had no intrinsic order was analyzed by Cross tab. The Chi-Square statistic indicated that general network home page and sports specialty network home page were not significantly different on what kind of background colour they had (p=0.346), whether they used frames (p=0.714), whether the horizontal scrolling was necessary (no page had scrolling need), whether text-based navigation bar or graphical-based navigation bar was used (p=0.67), and what layout they were using (p=0.326).

In general, sports specialty network appeared very slight advantage on navigation design-fewer number of "page-downs" on the home page than general networks did.

B. Types of content

1. Informational content

- The presence of those six dependent variables including the rolling updated sports news, top or highlighted sports news or stories, breaking sports news, sports features such as every day tip or today in history and etc., sports score, and Sports issue or analysis or editorials beyond the score and headline or viewpoints from columnists meant richer information than the absence of those variables. Therefore those non-parametric

statistics were ordinal (or ranked) data and was analyzed by using independent samples T Test (Mann-Whitney).

Table 14 Ranks of information content between general network and sports specialty network

	General network or sports specialty network	N	Mean Rank	Sum of Ranks
The rolling update sports news	General network	4	5.75	23
	Sports specialty network	10	8.2	82
	Total	14		
Top or highlighted sports news or stories	General network	4	9	36
	Sports specialty network	10	6.9	69
	Total	14		
Breaking sports news	General network	4	7	28
	Sports specialty network	10	7.7	77
	Total	14		
Sports scores	General network	4	9	36
	Sports specialty network	10	6.9	69
	Total	14		
Sports issue, or analysis, or editorials beyond the score and headline, or viewpoints from columnists	General network	4	7	28
	Sports specialty network	10	7.7	77
	Total	14		
Sports features such as everyday tip, today in history and etc.	General network	4	8.25	33
	Sports specialty network	10	7.2	72
	Total	14		

Table 15 Test statistics of informational content between general network and sports specialty network

Test Statistics(b)

	The rolling update sports news	Top or highlighted sports news or stories	Breaking sports news	Sports scores	Sports issue, or analysis, or editorials beyond the score and headline, or viewpoints from columnists	Sports features such as everyday tip, today in history and etc.
Mann-Whitney U	13	14	18	14	18	17
Wilcoxon W	23	69	28	69	28	72
Z	-1.14	-1.191	-0.632	-1.191	-0.329	-0.51
Asymp. Sig. (2-tailed)	0.254	0.234	0.527	0.234	0.742	0.61

Table 14 and 15 indicated that there was no significant difference on six informational elements- the rolling updated sports news (p=0.254>Sig0.05), top or highlighted sports news or stories (p=0.234>Sig0.05), breaking sports news (p=0.524>Sig0.05), sports features such as every day tip or today in history and etc. (p=0.61>Sig0.05), sports score (p=0.234>Sig0.05), and Sports issue or analysis or editorials beyond the score and headline or viewpoints from columnists (p=0.724>Sig0.05).

- Two elements - number of top sports news or stories and number of sports headlines, were scale data and therefore parametric statistics by using independent samples t test was used to compare the difference between general network and sports specialty network.

Table 16 Group statistics of informational content between general network and sports specialty network

Group Statistics

	General network or sports specialty network	N	Mean	Std. Deviation	Std. Error Mean
Number of sports top news	General network	4	8.75	5.62	2.81
	Sports specialty network	10	2.7	2.908	0.92
Number of sports headlines	General network	4	5.5	6.557	3.279
	Sports specialty network	10	6.3	4.473	1.415

Table 17 Test statistics of informational content between general network and sports specialty network

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of sports top news	Equal variances assumed	3.143	0.102	2.71	12	0.019	6.05	2.232	1.186	10.914
	Equal variances not assumed			2.046	3.663	0.117	6.05	2.957	-2.465	14.565
Number of sports headlines	Equal variances assumed	2.243	0.16	-0.266	12	0.794	-0.8	3.003	-7.342	5.742

	Equal variances not assumed			-0.224	4.173	0.833	-0.8	3.571	-10.555	8.955

Table 16 and 17 indicated that there was a significant difference on number of sports top news (F=0.101>Sig0.05, t(12)=2.71, p=0.019<Sig0.05). General networks showed much more number of sports top news on home pages. There was no difference on number of sports headlines (F=0.16>Sig0.05, t(12)=-0.266, p=0.794>Sig0.05).

- Sports news timeline was a nominal variable, so chi-square was the appropriate statistic. The result showed that general network and sports specialty network were no different on sports news timeline (p, 2-tailed, =0.33>Sig0.05). Most of them provided daily sports news on home page.

2. Transactional content

The presence of four transactional elements-sports store, direct ordering, merchandise catalogue and ticket information was an indication of site turning to e-commerce consciousness. The presence of those elements was considered higher advantage on content richness. Therefore those four variables were considered ordinal (or ranked) data and non-parametric statistics through t test (Mann-Whitney) would be appropriate.

Table 18 Ranks of transactional content between general network and sports specialty network

Ranks

	General network or sports specialty network	**N**	**Mean Rank**	**Sum of Ranks**
Sports store or shopping	General network	4	7.25	29
	Sports specialty network	10	7.6	76
	Total	14		
Direct ordering	General network	4	8.75	35

	Sports specialty network	10	7	70
	Total	14		
Ticket information	General network	4	6.5	26
	Sports specialty network	10	7.9	79
	Total	14		
Merchandise catalogue	General network	4	7.5	30
	Sports specialty network	10	7.5	75
	Total	14		

Table 19 Test statistics of transactional content between general network and sports specialty network

Test Statistics(b)

	Sports store or shopping	**Direct ordering**	**Ticket information**	**Merchandise catalogue**
Mann-Whitney U	19	15	16	20
Wilcoxon W	29	70	26	75
Z	-0.18	-1.581	-0.931	0
Asymp. Sig. (2-tailed)	0.857	0.114	0.352	1

Table 18 and 19 showed that there was no significant difference on transactional content between general network and sports specialty network on home page.

3. Promotional content

The presence of those seven promotional elements was considered higher advantage on station's program and site promotion. Therefore non-parametric statistics through independent samples t test (Mann-Whitney) was used to compare the difference.

Table 20 Ranks of promotional content between general network and sports specialty network

Ranks

	General network or sports ecialty network	N	Mean Rank	Sum of Ranks
Sports channel logo	General network	4	7.5	30
	Sports specialty network	10	7.5	75
	Total	14		
Sports schedule on TV	General network	4	6.25	25
	Sports specialty network	10	8	80
	Total	14		
Station staff biography	General network	4	6.5	26
	Sports specialty network	10	7.9	79
	Total	14		
Trivia games or contests	General network	4	6.75	27
	Sports specialty network	10	7.8	78
	Total	14		
Fantasy game	General network	4	6.75	27
	Sports specialty network	10	7.8	78
	Total	14		
Voting polls	General network	4	7.75	31
	Sports specialty network	10	7.4	74
	Total	14		
Giveaway	General network	4	6.5	26
	Sports specialty network	10	7.9	79

	Total	14	

Table 21 Test statistics of promotional content between general network and sports specialty network

Test Statistics(b)

	Sports channel logo	Sports schedule on TV	Station staff biography	Trivia games or contests	Fantasy game	Voting polls	Giveaway
Mann-Whitney U	20	15	16	17	17	19	16
Wilcoxon W	75	25	26	27	27	74	26
Z	0	-1.581	-0.931	-0.51	-0.51	-0.198	-0.931
Asymp. Sig. (2-tailed)	1	0.114	0.352	0.61	0.61	0.843	0.352

Table 20 and 21 indicated that there was no significant difference on transactional content between general network and sports special network on home page.

C. Presentation Mechanisms

- The presence of still photos or images associated with sports news, unsolicited audio or link to audio or link to live audio, unsolicited video or link to archived video or link to live video or video capture, music, animation including dynamic or blinking text or image was undoubtedly a symbol of Web unique features. Therefore those five elements were analyzed in independent samples t-test (Mann-Whitney).

Table 22 Ranks of presentation mechanisms between general network and sports specialty network

Ranks

	General network or sports specialty network	N	Mean Rank	Sum of Ranks
Still photos or images associated with sports news	General network	4	6.25	25
	Sports specialty network	10	8	80
	Total	14		
Unsolicited AV, or link to AV, or link to live AV	General network	4	5.75	23
	Sports specialty network	10	8.2	82
	Total	14		
Music	General network	4	7.5	30
	Sports specialty network	10	7.5	75
	Total	14		
Animation including dynamic or blinking text or image	General network	4	6	24
	Sports specialty network	10	8.1	81
	Total	14		

Table 23 Test statistics of presentation mechanisms between general network and sports specialty network

Test Statistics(b)

	Still photos or images associated with sports news	Unsolicited AV, link to archived AV, or link to live AV, or video capture	Music	Animation including dynamic or blinking text or image
Mann-Whitney U	15	14	20	14
Wilcoxon W	25	24	75	24
Z	-1.581	-1.191	0	-1.191
Asymp. Sig. (2-tailed)	0.114	0.234	1	0.234

Table 22 and 23 indicated that there was no significant difference on four presentation features-still photos or images associated with sports news, AV, music and animation.

- Number of clickable graphics associated with news was scale measurement and therefore independent samples t-test was run to compare the difference

Table 24 Group statistics of number of graphics between general network and sports network

Group Statistics

	General network or sports specialty network	N	Mean	Std. Deviation	Std. Error Mean
Number clickable graphics associated with news	General network	4	9	12.247	6.124
	Sports specialty network	10	7.2	4.541	1.436

Table 25 Test statistics of number of clickable graphics between general network and sports specialty network

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number clickable graphics	**Equal variances assumed**	5.561	0.036	0.418	12	0.683	1.8	4.306	-7.581	11.181

associated with news	**Equal variances not assumed**			0.286	3.336	0.792	1.8	6.29	-17.124	20.724

Table 24 and 25 indicated that there was no significant difference on number of clickable graphics associated with sports news between general network and sports specialty network on home page (F=0.036<Sig0.05, t(3.336)=0.286, p=0.792>Sig0.05).

D. Interactivity

The presence of total of 22 categories under five dimensions of interactivity was considered a positive credit to home page interactivity attraction. Therefore non-parametric statistics through t-test (Mann-Whitney) was used to compare the difference. Statistics indicated that only two features found significant difference-search engine for sports (p, 2-tailed, =0.008<Sig0.05) and link to other information rather than sports within site (p, 2-tailed, =0.008<Sig0.05). Sports specialty network was more willing to have sports search engine on home page. General network had more links to other information rather than sports within site on home page.

E. Advertising

1. Ad type

Five types of ads were collected into categories of number of product/service advertising, number of public service advertising, number of issue advertising, number of corporate advertising, number of political advertising. Independent samples t-test was run to compare the difference on those five types between general network and sports specialty network on home page. Statistics showed that there was no significant difference found (p, 2-tailed, =0.391<Sig0.05).

2. Ad format

The number of nine formats was run by independent samples t-test. There was no significant difference found on cycling ad (t(12)=0.21, p=0.836>Sig0.05), banner (t(3.32)=0.53, p=0.63>Sig0.05), pop-up (t(3.24)=0.78, p=0.486>Sig0.05), sponsorship (t(12)=-0.77,

p=0.458>Sig0.05), hyperlink (t(12)=0.684, p=0.507>Sig0.05). Other ad formats were not found in any sample.

3. Objective banner feature

- Size: 15 banner ads were counted. Parametric statistics through independent samples t-test indicated that there was no significant difference found on skyscraper (t(3)=1, p=0.391>Sig0.05), wide skyscraper (t(3.192)=0.72, p=0.52>Sig0.05), full banner (t(3.199)=0.719, p=0.836>Sig0.05), half banner (t(12)=-0.617, p=0.549>Sig0.05), button 1 (t(9)=-1.464, p=0.177>Sig0.05), button 2 (t(12)=-0.868, p=0.403>Sig0.05). Other size of banner was not found in any sample.

- Position: 3 locations were counted. Parametric statistics through independent samples t-test indicated that there was no significant difference found on position of fixed bar on the top (t(12)=1.212, p=0.249>Sig0.05), position of above the fold (t(3.328)=0.39, p=0.72>Sig0.05), position of below the fold (t(12)=-0.198, p=0.846>Sig0.05).

In general, there was no significant difference on Web advertising between general network and sports specialty network on home page.

VII. Results for Research question7: public broadcaster vs. private broadcaster

RQ7: What are differences in terms of home page formal design, types of content, presentation mechanisms, interactive functions, practice of online ads between public broadcaster website and private broadcaster website on the sports home pages?

Among the samples only CBC English was public broadcaster service. The other 13 broadcasters were private sector.

A. Design of home page

- Non-parametric equivalent of the t test (Mann-Whitney) was run between public and private broadcaster service websites for those not normally distributed but rather ordinal variables to see if private sector would differ significantly on hierarchical navigation, ad hoc, sub-site, the number of sub-site, pull-down menu, navigation aids, the browsing path and

horizontal scrolling. The scores for those the eight dependent variables were ordinal scale. Analysis revealed no significant differences among the variables (hierarchical navigation Sig. p =1; ad hoc, Sig. p =0.782; sub-site, Sig. p =0.527; the number of sub-site, Sig. p =0.707; pull-down menu, Sig. p =0.248; navigation aids, Sig. p =0.317; the browsing path, Sig. p =0.386; horizontal scrolling, Sig. p =1).

- Independent samples t test was run for the number of "page-downs". Result showed no significant differences.

- Chi-square was fun for the four nominal variables - navigation bar, background colour, frames, and layout. The Pearson chi-square output revealed no significant differences (navigation bar, p=0.588; background colour, p=0.961; frames, p=0.773; layout, p=0.81).

In general, there was no significant difference found between CBC English and the other private broadcaster service on home page design.

B. Types of content

1. Informational content: For the total information scores based on the sum of all the types from the nine categories, non-parametric equivalent of the t test (Mann-Whitney) was run because the scores for the nine variables were ordinal scale. Analysis revealed no significant differences (sports timeline, Sig. p=0.602; the rolling update sports news, Sig. p =0.317; top or highlighted sports news or stories, Sig. p=0.602; number of top sports news, Sig. p=1; number of sports headlines, Sig. p =0.095; breaking sports news, Sig. p =0.782; sports features such as everyday tip, Sig. p=0.456; sports score, Sig. p=0.602; sports analysis beyond score, Sig. p=0.386).

2. Transactional content: For the total transaction information score from the four categories, non-parametric equivalent of the t test (Mann-Whitney) revealed no significant differences (sports store or online shopping, Sig. p=0.53; direct ordering, Sig. p=0.78; merchandise catalogue, Sig. p=1; ticket information, Sig. p=0.683).

3. Promotional content: For the total promotion information score, non-parametric equivalent of the t test (Mann-Whitney) revealed no significant differences (sports station logo, Sig. p=1; sports schedule on TV, Sig. p=0.782; station staff biography, Sig. p=0.683; trivia game or contest, Sig. p=0.18; fantasy game, Sig. p=0.456; voting polls, Sig. p=0.602; giveaway, Sig. p=0.683; bundled entertainment zone, Sig. p=0.527).

In general, CBC English had no any significant differences with other 13 private broadcasters in terms of the content types on website home page.

C. Presentation mechanisms

Non-parametric equivalent of the t test (Mann-Whitney) was run for the total scores for the category of presentation mechanisms. Analysis revealed no significant differences for the five categories (number of clickable graphics associated with sports news, Sig. p=0.8; still photo or image associated with sports news, Sig. p=0.78; AV, Sig. p=0.32; music, Sig. p=1; animation or blinking image, Sig. p=0.6).

D. Interactivity

For the total interactivity score (the sum of the 21 types in the five dimensions) for each site home page, non-parametric equivalent of the t test (Mann-Whitney) was run for each of the five interactivity dimensions (playfulness, choice, connectedness, information collection and reciprocal communication). Analysis indicated significant difference for sports chat room or discussion (Sig. p=0.014<0.05). No significant difference was reported for other categories.

E. Advertising

1. Ad types: Independent samples t test was run to determine if private broadcast had more ad types than public broadcast on website home page. Analysis revealed no significant differences for those five types.

2. Ad formats: Independent samples t test was also run to determine if private broadcast had more ad formats than public broadcast on website home page. Analysis revealed no significant differences for those eight types.

3. Objective banner features:

   - Size: Independent samples t test indicated no significant differences for those nine types of banner size on home page (skyscraper, $t(12)=-0.27$, $p=0.794>0.05$; wide skyscraper, $t(12)=-0.43$, $p=0.678>0.05$; full banner, $t(12)=0$, $p=1>0.05$; half banner, $t(12)=-0.27$, $p=0.79>0.05$; button 1, $t(12)=-0.39$, $p=0.71>0.05$; button 2, $t(12)=-0.37$, $p=0.72>0.05$).

   - Position: Independent samples t test indicated no significant differences for those three types of banner position on home page (fixed bar on the top, $t(12)=0.51$, $p=0.62>0.05$; above the fold excluding on the top fixed bar, $t(12)=-0.67$, $p=0.54>0.05$; below the fold, $t(12)=-0.71$, $p=0.49>0.05$).

Chapter 5

DISCUSSION

I. Summary

The goal of this study was to get an overall understanding of how Canadian television stations covered sports news on Web site home page. There are indeed a lot of handbooks, studies, and even research frameworks to guide and analyze the construction and capabilities of the Web sites. There are indeed several literatures discussed the Web potential for sports communication from theory basis. The previous studies for sports marketing and communication through Web platform focused on the Web performance in terms of by revenue model, professional sports leagues or clubs which (Brown, 1998; Caskey et al., 1999; Beech et al., 2000). But a specific study for sports coverage on television station Web site from function perspective is missing. This study distinguished among body of home page, types of content, presentation mechanisms, interactivity, and advertising. All categories classified and defined in those five areas were operationalized by means of objective measure. A total of 21 web sites were coded during three-month observation from August to October 2003 to get a solid snapshot of each site. WTSN stopped running website since September 2003 so was excluded from this study. This study presented five general research questions. They would be discussed in detail as following. Another two research questions tested whether the web site property (public or private, general or sports specialty) was related to any differences in the categories set forth in the first five general research questions. Top five sites in five areas would be identified respectively. Top three sports home pages that had good balance among five areas would be emphasized at last.

II. Design of home page

The first research question tested formal features affecting the construction of home page. Two features – number of screens and navigation system, were discussed most by Web site studies. Although 100% of the sites were hierarchical navigation, less than 50% of sites (42.9%) had sub-site that was believed in this study a symbol of the sophistication design and content richness of the site. TSN had the most number of sub-site, plus its adoption of site map aids, pull-down menu, and the browsing path identification, TSN was ranked the top site on home page design. Based on the same evaluation standard, NHL, MSNBC, Outdoor Life, and ESPN Canada were ranked from position of

the second to the fifth. Leafs TV had strikingly the second most number of sub-site but only was ranked the sixth because it did not provide any navigation aids such as site map. It didn't show the browsed path either to help user identify the current page position within the site.

One seemingly good finding was the lower number of screens across the 21 sites. Only 5 of 21 sites (23.8%) had four screens. The reason for it might be from two poles – content was inserted into a rather tight space, or there was no enough information offered at all. It needed to be evaluated with the combination of types of content addressed in the second research question.

For the look of the home page layout, 14 of 21 sites (66.7%) were top/bar/both. That meant this tradition still dominated in sports-related television websites.

III. Types of content

Those types of content appearing on the home page were split into three categories: information, transaction, and promotion. The reason that three categories were defined in this study was to get a picture of what content the current Canadian televisions focused on when they covered sports. Result revealed that the primary focus of sports home page was providing informational content, followed by promotional content. Transactional content rarely appeared on sports home page.

A. Informational content

For the look of informational content on the home page, majority sports home pages emphasized on offering top sports news, sports scores, sports features such as everyday tip and today sports history. TSN was the top site to provide the most number of information categories and top news and headlines, followed by Sportsnet, MSNBC, CBC English and NHL. However, the question of in which form those information types were remained could only be answered in research question 3.

To look at information categories in another way, the conclusion of capacity to incorporate information in a tight construction was hard to get even though the answer to question 1 showed that 66.7% of samples were using three of fewer screens. Up to seven informational types was

suggested by literature review and appearing across the samples. But only 52.4% (11) of 21 sites had been found at least 42.9% (3) of seven information types. TSN home page was the top one site that had the most sports information (6 of 7 types) but in four screens to show the whole home page. Similarly, MSNBC sports home page was the second one to offer as much as possible information (5 of 7 types) but in four screens. Eventually, Sportsnet home page was concluded the best example to show 5 (71.4%) of 7 types of information in three screens.

B. Transactional content:

It was not like the consensus on the integration of visual features onto the Web pages, the incorporation of transactional features such as online shopping and merchandise catalogues seemed new on sports home pages. Only 7 of 21 sites (19%) had sports online store on home page. Two sites – Raptors TV and The Score, had ticket information. Only one site, MSNBC had direct ordering to advertise NBC Sports duffle bag. MSNBC and Raptors TV were ranked the top. TSN, Leafs TV, and The Score had the same transaction appearance on home pages.

Online store, ticket selling, and merchandising were considered features to strengthen fans relationship with team and necessary to team's official Web site. The little use of transactional content indicated that for the sports coverage, the conception and meaning of e-commerce on the Web page had not been admitted by most Canadian television Web sites. It might because only Leafs TV and Raptors NBA TV dedicated to team. The other 19 sites in samples contributed to comprehension sports content. Raptors NBA TV was short of transactional content though. A lot of Web features such as Raptor's audio and video files were moved upward from Raptor's TV Web to its parent team's site.

C. Promotional content

A fairly high use of promotional feature was the sports logo on home page, followed by TV schedule. Trivia, contest, fantasy game, polls, screensaver download, giveaways, and bundled entertainment zone were considered highly value-added components on the Web to encourage user to watch the TV program and to return and stick in the Web. But those promotional features were rarely used on sports home pages. Leafs TV and Sportsnet were ranked the top, followed by TSN or

The Score, MSNBC and Raptors had the same promotion appearance. Obviously promotional content such as TV schedule, trivia games, contests, pictures download was encouraging Web users to go back and forth between TV screen and computer screen. The fewer adoption of the promotional content indicated the less attention of Web promotion by sports home page.

In general, TSN was the top site that within 4 screens is providing much more informational, transactional, and promotional content on home page than the other sites could. Sportsnet, Leafs TV, The Score, MSNBC offered almost the same amount of content with the only different emphasis. Then was CBC, NHL. CBC and MSNBC were the only two general network Web sites to get into those top lists.

Another importance worth to mention here was that CBC, which is public broadcaster service, was able to provide information content even more than NHL and ranked No. 4 among 21 sits. To some extent this finding echoed Jupiter Media Metrix's press release of Canadian Internet Usage Stats in which CBC was the No.1 popular Canadian web site during August and September in 2001. It found that CNN.COM led the pack with 1,813,000 Unique Visitors in September, an increase of 198% over the month of August 2001. MSNBC.COM followed CNN.COM with 1,104,000 Unique Visitors during the month of September. Three Canadian sites, CBC.CA, RADIO-CANADA.CA and GLOBEANDMAIL.COM rounded out the Top 5 News sites[16]. Another reason that CBC was providing more information on site was originated from its hall of fame TV program – Hockey Night in Canada, started in October.

There was a hot topic about what content should be emphasized by television stations on their Web sites. As indicated in previous session about the convergence of television and the Web, the arguments were around the options in between emulating the fast-moving style of other Web companies and keeping the broadcast content and packing skills (Hansell, 2000). It remained no certain uniform that could be taken by all television stations. And from the competitive advantage perspective, the similar Web presence was not supposed to be always. The result that most Canadian television station Web sites focused on providing sports news and information rather than transaction elements on their sports home page indicated that before the full Web advantages to be taken and a

[16] http://www.comscore.com/press/release.asp?id=257

clear Web role to be positioned, a traditional information portal site was tending. Big networks that had strong resource such as TSN, Leafs TV would like to incorporate comprehensive sports information not only about team's performance, the contribution to community, but also the career chance and other station and Web services on home pages.

The trend of sports information portal for television websites seemed challenging. For example, Canoe.ca is a web-only service incorporating SLAM! Sports[17]. Its sports home page scored high after examined by the same coding standard in this study. Further, it was estimated that millions of newspaper online edition were another pool of strong competitors if television station Websites only dedicated whole energy to sports information portal. A chance of standing out lied with the use of audio and video files that were natural advantages of television.

IV. Presentation mechanisms

Based on the nature of television station Web site, its Web page is destined to be a station's supplement that assists programs' promotion and expends their influence across the geographical boundary. This study believed that television station Web presence should be a balance between text and image. Vivid graphics, audio and video facilitated by the Web technology should be taken to make the station Web page attractive and distinguishable from the newspaper and magazine online edition. At the one end, 21 sites in this study were using tradition hierarchical navigation system that differed from other fantastic Web design. But at the other end, sites were not using a high number of presentation mechanisms across the board. The presence of audio, video and animation was very low. Still photo or image associated with sports news was the most common look (17 sites, 81%). Blinking or scrolling graphics associated with sports were used by 13 sites (61.9%). Only three sites – Outdoor Life, Leafs TV, The Score, had animation associated with sports news.

At the early time of site development, the argument on whether the site should incorporate visual features while sacrificed the download speed was understandable due to the limit of Web technology and fairly high dependence on dial-up online instead of high-speed or broadband net surfing. It would always be challenging for any site including television station website to be a greater integration of visual features while also keeping the site relatively small, and thus easier and faster to

[17] 2002-2003 Media Digest, Canadian Media Director's Council, P55

download (Bates et al, 1997). Along with development of the Internet technology, several resolutions such as the adoption of streaming media could be counted on to speed up the browsing. BBC provides two options on the left top bar on home page. High graphics is default when BBCi.com is opened. Users who don't like much the graphics or are limited by the connecting speed are offered the alternative to change to "low graphic edition". The Score incorporates video clips with the high or low speed connection options. TSN, ESPN Classic Canada, NHL Network, and Outdoor had similar design that accessed audio and video clips. In general, Leafs TV was ranked No. 1 site having the highest number of features. TSN was the second because it lacked animation. Then The Score was the third site because it had fewer clickable graphics than Leafs TV and TSN. Then they were followed by ESPN Canada, and NHL.

V. Interactivity

Interactivity was split into five dimensions as suggested by Ha and James (1998) – playfulness, choice, connectedness, information collection, and reciprocal communication. Each category under five dimensions was redefined and accommodated to fit sports coverage.

A. Playfulness: Compared to other nature of site pages, sports coverage should incorporate rather high use of entertainment features to increase playfulness. But the result showed low use of trivia, fantasy game, bundled entertainment zone found on sports home page. Polls and giveaways were rather lower.

B. Choice: Six types were defined. But again, majority of sites were missing these choices. The most common choice (8, 38.1%) was sports search engine, which was considered the very important choice in interactivity features to offer users a faster way of browsing. Only 4 sites allowed users to download athletes or games pictures as screensaver.

C. Connectedness: Sites found did the best in this dimension. Each of four hyperlinks defined was used by over 50% of 21 sites. The reason for this was originated from the nature of sports home page. First, it served as the front door to deeper levels in site so apparently it needed to link as much as information as it could. Secondly, among samples 11 sites belonged to general networks or stations in which sports information was one of sub sites so they were naturally linking to a lot

of information such as finance or travel other than sports within sites. It was observed that sites were more willing to offer path to advertiser's site.

D. Information collection: It was considered by some profession sports leagues or clubs as an effective way to collect fans' information to build loyalty to the team. But the result showed rather little evidence on sports home page. Few sites were doing in registration partly (28%), registration for the entire site (0%), or visitor count (0%). As explained in earlier session of types of content, television station was more willing to serve as information provider. That might explain why no one site asked for the registration for the entire site and fewer sites required part registration. It was expected that registration would be required in deeper levels such as in discussion room or when users tended to upload personal viewpoints after news.

E. Reciprocal communication: One satisfactory finding was 14 of 21 sites (66.7%) had sports contact information including the contact with sports television, sports news editors, or columnists on home page. BBS and chat room were found little on home page. Although they could be in the deeper level, it was argued that they would be easily missed by fast readers.

In the total sum of interactivity scores for each site, Leafs TV was ranked No. 1, followed by TSN or The Score. MSNBC was ranked the third. Sportsnet was the fourth. CBC was the fifth.

In sum of all categories in the above four areas: body of home page, types of content, presentation mechanisms, and interactivity, a final rank list that represented the balance between content and design on sports home page came out. TSN was the No. 1 site that danced between content, navigation, web features and interactivity. Leafs TV was the No. 2 that had striking advantages on presentation mechanisms and interactivity. The Score was the No. 3 that emphasized interactivity and content richness. MSNBC was the No. 4 site that focused on body of home page, content offer and interactivity with a little weak power. Then, Sportsnet was the No. 5 site that got a good impression in terms of interactivity and content richness. NHL and CBC got almost the same score in those four areas. NHL was good at home page design, providing informational content, and presentation. CBC highlighted Discussion and Digest on the home page, thus got a high score on interactivity. CBC was also able to offer rich sports news. Then was ESPN Canada that had

advantages in terms of presentation and home page design. Outdoor Life had one advantage on home page design.

The other 12 sites including 7 independent television websites and 5 networks (CTV, Global, Raptors, Foxsports, and Xtreme) were not found the balance between design and content although some advantage did exist.

VI. Advertising

The structure approached as suggested by Rogers and Thorson (2000) was used in this study to detached subjective factors when analyzing objective features of advertising associated with sports coverage. Online advertising appearing on sports home pages was split into three categories: ad type, ad format and objective banner features.

A. Ad type:

Averagely sports home page welcomed online advertising. 76.2% of sites were found product/service advertising. Global was observed 10 ads that were all product/service type. TSN had the second high number of ads that had 6 product/service ads. 4 produce/service ads were found on The Score home page. Foxsports, CH Victoria, CJON, CKPR, CKWS were also found online advertising although the earlier analysis indicated the low ranks. The reason for it was that they all were sub-site of parent Web site. The ads appearing on parent site home page were remained when sports sub-site was opened.

As far as product/service category advertised:

1. Drink was found the most common look of product on sports home page. Eight ads were drink products including 4 Pepsi ads, 2 Molson ads, 1 I AM CANADIAN and 1 Smirnoff ad.

2. Electronics was the second common ad. Five electronics brands were found including 2 Samsung ads, 1 HP, 1 IBM, 1 Philip. A cell phone ad was found also.

3. Travel and Auto related were the third common. Five ads related to travel including Expedia, Discovery, Travelocity were found. Four auto brands including Suzuki, Cadillac, Volkswagen, and KIA were found. 1 ESSO ad was found.

4. Food was found the same amount of ads on sports home page. Four food brands including Subway, Snikers, Orbitz and Steaking house.

5. Online security and Credit card & Bank were the fifth common look of ads.

6. Only two sports related brands – Taylormade and Sports Illustrated were found.

7. Two education ads appeared on sports home page. It was believed in this study they were not associated with sports coverage directly but cycled in general television station Web site and so appeared on sports page randomly.

8. The other ads such as related to estate, lottery, buysell, and trivia appeared once.

B. Ad format: The most common look of ad format was banner. Global TV, TSN, The Score were found have 6, 4 and 4 banners respectively.

C. Objective banner features: Majority banners were put above the fold. The advertisers had realized the importance of ad position on the Web page. For the size of ad, the advertisers commonly used full banner (468 x 60 pixels) and button 1 (120 x 90).

Summarized from the above three ad categories, Pepsi seemed to be the brand that invested the most on sports home page because its ad appeared frequently in format of full banner above the fold. But a clear rank list of brand ads spending on sports home page could not be confirmed in this study because of the lack of ad charge fee comparison on each home page that would be beyond this study. Both Molson and Samsung appeared twice in varied formats such as sponsorship or button 1.

Although it was hard to conclude the total of each ad spending on sports home page, the examination of each sports home page in terms of ad type, format and banner features accumulated was meaningful to testify that which sports home page was attractive. Canada.com was the most active

web site that had varied types of ads. It is a comprehensive Internet network and portal supported by over 30 publications and other online newspapers, carclick.com, and careerclick.com for personalized information and services including travel, autos, careers, finance, free e-mail, news, shopping, sports, a business and people directory and etc.[18] Usually the banners on Canada.com was cycling within site. Therefore it was not a surprise to observe that its sports home page had the most number of ads. Aside of Global TV, TSN home page gathered the varied ads, followed by The Score. This finding matched the sites rank summarized from the previous four areas. Therefore the top three home pages were confirmed as TSN, Leafs TV and The Score. These three good sites would be exemplified later.

VII. General network website sports home page vs. sports specialty network website sports home page

4 general networks (CTV, CBC English, Global, and MSNBC) and 10 sports specialty networks were compared to see if any differences related to five areas set forth in five areas. Although top three web sites were all sports specialty networks and MSNBC, CBC was ranked No. 4 and No.6 respectively, it was expected that general networks and sports specialty networks had significant differences on some categories. The results revealed that general networks had much more sports top news and much more hyperlinks to other news than sports within the sites due to their nature. Sports specialty networks were doing better in saving space using less number of screens and in search engine.

VIII. Public broadcaster website sports home page vs. private broadcaster website sports home page

As indicated by Hills and Michalis (2000), the competition between public service broadcaster and private service broadcaster was expanded from the television screen to the online use. Further, the development of the Internet and the Web has formed more competitors ranging from commercial broadcasters to newspapers, portal websites and etc (Hills & Michalis, 2000). The example of BBC Web presence was not only an example of internationalization that was expanding local audience and reached out foreign market through the running of BBC America and BBC World, but also was an example of interactivity and news provider through the running of BBC Online (Hills & Michalis, 2000). Along with the very success obtained by public service broadcasters such as BBC, CBC, ABC,

[18] 2002-2003 Media Digest, Canadian Media Director's Council, P55

and PBS with respect of interactivity, the range of topics, the reliability of the provider, and internationalization, the old questions were raised again to challenge to public service broadcasters through regulatory intervention, rather than through competition (Hills & Michalis, 2000).

Concluded by Hills and Michalis (2000), CBC.ca was one of five public broadcasters that demonstrated sports importance on the Web to target specific groups. In this study the results got from the 1st –5th general research questions have shown that CBC had striking advantage in terms of interactivity and corresponded with Hills and Michalis's conclusion. In detail, in terms of the category of Chat room in five-dimension interactivity, CBC.ca had a significant difference from the private broadcaster service. CBC.ca showed the ability to hold people's attention through the value of chat forums. No significant differences found on the other categories in five areas. The sophistication achieved by private broadcasters such as TSN, Leafs TV, The Score, MSNBC, Sportsnet and etc. paled by the poor performance of other private broadcasters such as Foxsports, Xtreme, and Raptors NBA TV. Although there seemed no significant difference in terms of online advertising, a minor difference did exist. Advertising was not allowed to play a significant part on public broadcaster website. In other words, public service broadcaster was not supposed to run a commercial site if it got fund from the government. In this study, one Subway full banner was found at the fixed bar on the top of CBC sports home page after the hot program-Hockey Night in Canada began and it lasted only for couples of days. No other ads appeared in the rest of time period.

IX. Site model

Basically, it was very hard to justify which site was the best one that absolutely had good performance. Too many factors that were excluded in this study such as the attractiveness of Web article, quality of editorial, the level of information, the range of topics, the reliability and reputation of information provider, speed of download and etc. would be affecting Web performance. Instead of the content evaluation, this study was only approaching the design of Web site. And, this design evaluation was just targeting sports home page that was one sub-site in many samples. Based on the criteria set in the coding sheet in this study, TSN, Leafs TV, and The Score were ranked top three websites had standing-out sports coverage. Printouts of their home pages were attached as Appendix 9, 10, and 11.

A. TSN – The Sports Network: The most striking advantage on TSN home page (www.tsn.ca) is its separated Audio/Video zone and photo gallery. TSN had many sub sites to cover a variety of sports ranging from professional sport to amateur sport. The latest sports programming is rolling on the top of the fixed bar to get users attention. The news stories on the home page are presented by headlines and capsules with photos, which are both linked to full stories in deeper levels. Fantasy games and contests are not only on the top navigation bar but also are highlighted in some detailed with colourful graphics appearing on the right column layout. Pull-down menus make all sub-site information come out without opening a separate web page. Free newsletter, wireless service and part registration requirement are of help to collect users information. The brief comments from columnist are highlighted on the right column layout with clickable characters into in-depth analysis. Another advantage is its deeper levels. Its second, third and later levels are getting more rich and showing more information compared to majority of sites that are getting shrink without much news than the home page. More photos and graphics would come up with full story. Users are allowed to post their viewpoints after reading each piece of news. Other services such as careers at TSN and TSN staff personalities are also available on the home page. Outdoor Life, NHL, ESPN Classic Canada are all the second level starting from TSN.

In general, value-added Web features over rival sites are presented on TSN home page. It is able to provide not only tons of sports news and information but also comprise and highlighted the most important components on the home page as an index to guild users to surf deeper sites.

B. Leafs TV – dedicated to Toronto Maple Leafs: The striking advantages on Leafs TV home page (www.leafstv.com) are its interactivity features and presentation mechanisms. It bundles trivia, contest, giveaways into a separate entertainment zone and interactive zone to encourage Leafs fans even including children to get involved team's variety of events around. Leafs TV is connected to leafs official team website. Photos, graphics, video and animation are presented a lot of Leafs news on the home page. Only one colour appears on the home page. Whatever the team's logo and Leafs TV's logo on the fixed bar, the players' suits, the advertisers such as Philip-Shave all in blue match team's blue identity. Team's store is also available.

C. The Score: This specialty network is available in every major market in Canada. It offers 24-hr sports highlights and information (2002-2003 Media Digest by Canadian Media Director's council). The striking advantages on its home page (www.thescore.ca) are AV choice and interactivity. Both low speed and high speed to download AV are along with video's clips on the home page. The update sports news is rolling on the top fixed bar to get attention. One interesting function is its ability to download ticker to the bottom of the screen to allow user to read the latest rolling sports news from The Score. In this way after users close The Score's site or jump to the other sites, the downloaded ticker remains at the bottom of screen with shining and rolling news. Its bundled interactivity zone appeared not only on the top navigation bar but also at the centre of screen with one-page down. It comprises contests, giveaways, contact way to columnist, interaction with variety teams' players to get their stats and feedback, and participation of debate on teams' performance. Another interesting thing found on The Score site is its use of horizontal frame. The other sites always avoid this controversial design purposely. The Score site is the only one site found to adopt frame design. Its frame is horizontal level instead of vertical level. It's short enough without the need to scroll the bar from the left to right.

These top three sites take greater advantage of the Web technologies and possibilities defined in this study than other sites examined. They have better navigation and browsing systems, provide a variety of and much more sports news presented by a greater number of presentation mechanisms, and offer much more interactivity features. Online advertisements attracted by them are the most in terms of ad type, format, position and size.

X. Review of the other sites

Although the above section explained three outstanding sports home pages that have balance among five examined areas, the other sports home pages had their own characteristics that should mention in here. Some sites took advantage of one or more in the five areas. Some sites appeared weak in Web design including sports coverage.

For the three major networks in Canada, although they all approached sports information in national level instead of local range, their sports home pages had different characteristics on Web site. Canada.com was designed and maintained in a purpose of being a portal presence. As one part of this

service, Global TV was developed as an information provider. But sports news was not covered on Global TV's web page in each city. Instead, it was represented in the unique national plat form across Canada. In other words, no matter what city the Global TV Web page was presenting, it would be linking to one sports sub-site that was covering national sports news and information rather than local sports news. The advantage of sport home page on Canada.com was its richness of sports information in easy navigation system. Online advertising was also found the most common on Canada.com. The reason of lack of multimedia features might be the short of sports news on TV. Unique sports coverage also happened on CTV Web page in each city. However, in contrast, CTV sports home page had less sports information than Canada.com did. Non-sports left navigation bar almost carved out one-third of sports page. Non-sports headlines at the bottom ate almost one-fourth of sports page. Sports headlines without photos were on the middle of rest page. CTV might put all energy into the construction of TSN and provided many links on its sports home page to connect with TSN. Therefore it was concluded that CTV sports home page was acting rather as a guideline than an information provider. Rather than waiting for connecting from users, CBC proactively was concerned to keep audience online and offline. CBC sports home page was evaluated the best sports coverage in terms of interactivity. It highlighted sports fans' forums. And it was not like other sites, those forums could be seen without registration. Registration was required only if users wanted to post messages. Further, it posted "Contact us" which was rather rare in general station web pages. That showed that CBC sports was very concerned its users and able to manage the feedback. CBC sports home page also offered many sports news in form of photos and in-depth analysis. Especially after Hockey Night in Canada began, much more information with photos and contests enticing users to go deeper levels appeared. The shortcoming of CBC sports was the lack of audio and video clips on Web site.

For the popular MSNBC.com, its sports home page was scored high in three areas of body of home page, content information and interactivity. Its graphical-based navigation bar, rich sports information in sub-sites and pull-down menus, the specialists' image beside editorials were highlights on MSNBC sports home page. But its lack of audio and video clips resulted in somewhat less attractiveness compared to TSN, Leafs TV and The Score.

Sportsnet.ca was the only one site that offered choice for graphical location on the first page. So the examination was started from the second level actually. Raptors TV home page was supposed

to be a little bit different because it was the sub-site of NBA and attracted many online advertisements including Snickers and Philipshave in form of blinking graphics and bright colour. Raptors TV seems over commercialized because it provided too much access to other partners' websites that would let users out of its own site. Raptor TV home page was playing an introduction role. Sports news was placed in a separate section and so Raptors TV home page only provided hyperlinks. Similarly, many more Web features such as interactivity and multimedia were available on the deeper levels. Although both Raptors NBA TV and Leafs TV devoted to the team instead of one sport or general sports, web presence between them differed. Raptors TV construction depended on NBA official website and so it seemed no need to incorporate much information separately. Leafs TV wholly contributed to Maple Leafs and so its complex had a direct relationship with Leafs official website.

ESPN Classic Canada, NHL Network and Outdoor Life were at the second level of TSN site. At the first sight, they had the very similar web layout. In terms of the number of sports news, the interactivity facilitation, and multi-media features, they were not doing well as TSN. But if users looked at those sites as sub sites of TSN, it would add the richness of TSN with no doubt.

Foxsports, Xtreme buried in the fourth level of Canada.com seemed rather weak although they changed some design during 3-month observation. The little sports information indicated their dependency on parents' website.

Sports coverage on seven independent general station websites were apparently weak in terms of little amount of sports news, the simple text presentation and little interactivity facilitation that might be originated from the weaker resources than network station had. Two sites – CKWS based on Kingston running by CBC and Corus Entertainment Inc., CKPR based on Thunder Bay running by CBC, CTV and Thunder Bay Television Inc. were evaluated the better one than the rest of five independent general station websites. CKPR changed its web presence during the observation period. It highlighted everyday community sports on the sports home page. Beside sports headlines, the links to local team official site-Thunderwolves and Bordercats. The links to national leagues were also provided. The highlight of sports headlines with capsules and photos on the middle column of sports home page of CKWS was fairly like CTV sports home page, but just without the strong support by

TSN. The other five independent sites offered the background information of the sports staff or program without any sports news on their sports home pages.

XI. Limitations to this study

The method of content analysis was chosen because it was believed in this study to be a systematic way to look at the presence of sports television network websites and the first step to conduct qualitative research in the future. In this sense, it was also a reasonable comprehension that the most difficult point in this research design was the set up of a series of fairly thorough and reliable measurements, the accurate definitions of those measurements, and the appropriate use of those measurable standards. In other words, how to strike a balance between not overestimating the appeal of the Web and not underestimating it as well was the biggest barrier to make this study successful. The criteria set in the coding procedure were based on literatures relevant to television station website analysis, the general Web design and sports website examination. The subjectivity and bias might weaken the conclusion of this study although as much as possible reading materials had been done to minimize this weakness.

The second difficulty that might be a limitation of this study, as many researchers have identified (Pines, 1999; MacMillan, 2000), is the rapid development of the Web technologies that let any web research impossibly to stick with one or two theories or models. That's why we often see the comparison study over a long period of time such as two years in a row done by many more critical scientists. This study was only able to look at the web samples at a period of time. So any difference or changes over time that may strengthen or weaken the results of this study was beyond this study. As already mentioned in earlier sections, this study was only looking at five design components on sports home pages of 21 Canadian sites. The content components such as Web article writing and the download speed were beyond this study so they could not be approached. Although there are tons of illustrations about the Web design principles, even though it is very easy to copy model sites, it is believed that each site became to exist from varied background with resource support and so is performing differently. This study was only catching a short period on a fast-pacing Web development. Therefore it is impossible to get an absolute conclusion of which site is the best forever.

Third, the measures in this study were developed only for sports information on television website and so could not be used to evaluate other information on television website or other websites. This indicated that some site considered as the worse sports coverage did not mean a worse coverage by other information categories. Newspaper online edition or pure Internet service would approach target group and highlight interactivity and multi-media features in another ways. Therefore this study was only able to describe what 21 Canadian websites were like in a short period of time.

XII. Future research

The results and analysis raised some criticisms. There was little evidence that Canadian television websites were using many presentation mechanisms and interactivity features, thus missing out on segmentation-based communication opportunities. The response from the site's owner and Web designer were not the part of this study therefore the reason of building the website was obscure. Further survey research or qualitative interviews could be done to answer the questions of what broadcasters perceive the Web's role in their integration communication and marketing practice and how Web designer fulfill those purposes suggested by media directors. Another communication spectrum is the subjective response from web users. Survey or interviews are also helpful to get the users' feedback about which home page design, what types of content, which presentation mechanism and what interactivity facilitation would be preferred and easily accepted. In general, a full investigation of a sports home page or site would need more work to clarify the internal organization operation such as cost, revenue, advertising sales and external users response such as individual's priority, mass visiting counts would be important measurements to examine the effectiveness of sites.

XIII. Conclusion

This study was a short-term snapshot of each site. It is believed that all sites are in fast development and will be changed the design frequently. For example, Foxsports and Xtreme home page were changed during three-month observation. Cananda.com added a full banner size that is 486 x 60 pixels above the station logo bar on the very top of the page since Nov. 1, 2003. This banner was also an animation, then remained size but turns into a pure banner ad after sub-site was opened.

The results reached the goal of this study. Finally, an overall picture of how Canadian television stations were using the World Wide Web to cover sports news and information. This study also left a lot of rooms for further research to explore sophistication of the site development.

APPENDICES

1. CBC

CBC English owned stations

Corporation Owner	Province	City	Name	Station ID	URL of sports (turned out to be identical content)
CBC	Alberta	Calgary	CBRT-TV	CBC Calgary	http://www.cbc.ca/sports/
CBC	Alberta	Edmonton	CBXT-TV	CBC Edmonton	http://www.cbc.ca/sports/
CBC	British Columbia	Vancouver	CBUT-TV	CBC Vancouver	http://www.cbc.ca/sports/
CBC	Manitoba	Winnipeg	CBWT-TV	CBC Winnipeg	http://www.cbc.ca/sports/
CBC	New Brunswick	Fredericton	CBAT-TV	CBC Fredericton	http://www.cbc.ca/sports/
CBC	Newfoundland	Corner Brook	CBYT-TV	CBC Corner Brook	http://www.cbc.ca/sports/
CBC	Newfoundland	St. John	CBNT-TV	CBC St. John's	http://www.cbc.ca/sports/
CBC	Northwest Territories	Yellowknife	CFYK-TV	CBC North TV	http://www.cbc.ca/sports/
CBC	Nova Scotia	Halifax	CBHT-TV	CBC Halifax	http://www.cbc.ca/sports/
CBC	Nova Scotia	Sydney	CBIT-TV	CBC Sydney	http://www.cbc.ca/sports/
CBC	Ontario	London	CBLN-TV	CBC London	http://www.cbc.ca/sports/
CBC	Ontario	Ottawa	CBOT-TV	CBC Ottawa	http://www.cbc.ca/sports/
CBC	Ontario	Toronto	CBLT-TV	CBC Toronto	http://www.cbc.ca/sports/
CBC	Ontario	Windsor	CBET-TV	CBC Windsor	http://www.cbc.ca/sports/
CBC	Prince Edward Island	Charlottetown	CBCT-TV	CBC Charlottetown	http://www.cbc.ca/sports/

CBC	Quebec	Montreal	CBMT-TV	CBC Montreal	http://www.cbc.ca/sports/
CBC	Saskatchewan	Regina	CBKT-TV	CBC Regina	http://www.cbc.ca/sports/
CBC	Saskatchewan	Saskatoon	CBKST-TV	CBC Saskatoon	http://www.cbc.ca/sports/

2. Global TV

Global Owned stations:

Property	Province	City	Name	Station ID	URL of Sports Section
CanWest Global Communications Corp.	Alberta	Calgary	CICT-TV	Global Television Calgary	http://www.canada.com/sports
CanWest Global Communications Corp.	Alberta	Edmonton	CITV-TV	Global Television Edmonton	http://www.canada.com/sports
CanWest Global Communications Corp.	Alberta	Lethbridge	CISA-TV	Global Lethbridge	http://www.canada.com/sports
CanWest Global Communications Corp.	Alberta	Red Deer	CKRD-TV	RDTV	http://www.canada.com/sports
CanWest Global Communications Corp.	British Columbia	Vancouver	CHAN-TV	Global BC	http://www.canada.com/sports
CanWest Global Communications Corp.	Manitoba	Winnipeg	CKND-TV	Global Television Winnipeg	http://www.canada.com/sports
CanWest Global Communications Corp.	New Brunswick	Saint John	CIHF-TV2	Global Saint John	http://www.canada.com/sports
CanWest Global Communications Corp.	Nova Scotia	Dartmouth	CIHF-TV	Global Halifax	http://www.canada.com/sports
CanWest Global Communications Corp.	Ontario	Toronto	CIII-TV	Global Television	http://www.canada.com/sports
CanWest Global Communications Corp.	Ontario	Hamilton	CHCH-TV	CH Hamilton	http://www.canada.com/sports
CanWest Global Communications Corp.	Quebec	Montreal	N/A	Global Quebec	http://www.canada.com/sports
CanWest Global Communications Corp.	Quebec	Montreal	CJNT-TV	CH Montreal	http://www.canada.com/sports

CanWest Global Communications Corp.	Saskatchewan	Regina	CFRE-TV	Global Television Regina	http://www.canada.com/sports
CanWest Global Communications Corp.	Saskatchewan	Saskatoon	CFSK-TV	Global Television Saskatoon	http://www.canada.com/sports

3. CTV

Property	Province	City	Name	Station ID	URL of Sports
CTV Owned	Manitoba	Winnipeg	CKY-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	New Brunswick	Moncton	CKCW-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	New Brunswick	Saint John	CKLT-TV	ATV New Brunswick	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Nova Scotia	Halifax	CJCH-TV	ATV Halifax	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Nova Scotia	Sydney	CJCB-TV	ATV Cape Breton	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Ontario	North Bay	CHNB-TV/CKNY-TV	MCTV	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Ontario	Sault Ste. Marie	CHBX-TV	MCTV	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Ontario	Sudbury	CICI-TV	MCTV	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Ontario	Timmins	CFCL-TV/CITO-TV	MCTV	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Ontario	Toronto	CFTO-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Saskatchewan	Prince Albert	CIPA-TV/CKBI-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Saskatchewan	Regina	CKCK-TV	CTV Saskatchewan	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Saskatchewan	Saskatoon	CFQC-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html
CTV Owned	Saskatchewan	Yorkton	CICC-TV/CKOS-TV	N/A	http://www.ctv.ca/generic/generated/news/Sports.html

4. Independent stations web sites that cover sports news and information

Affiliates relations	Province	City	Name	Station ID	URL of Sports
CBC & The Jim Pattison Broadcast Group	Alberta	Medicine Hat	CHAT-TV6	N/A	http://www.1270chat.com/navigation/sports/sports.html
CanWest	British Columbia	Victoria	CH Vancouver Island	CH Victoria	http://www.canada.com/victoria/chtv/info/sportspage.html
CBC & CanWest	British Columbia & Yukon	Kelowna	CHBC-TV	CHBC-TV	http://www.chbc.com/feature/sports/
Newfoundland Broadcasting Co. Ltd	Newfoundland	St. John	CJON-TV	NTV	http://www.ntv.ca/sports/sports.htp
CTV	Ontario	Ottawa	CJOH-TV	N/A	http://www.cjoh.com/sports.asp
CBC & Corus Entertainment Inc.	Ontario	Kingston	CKWS-TV	N/A	http://www.ckwstv.com/ckws_news_general.cfm?newscat=sports&shownews=10
CBC & CTV &Thunder Bay Television Inc.	Ontario	Thunder Bay	CKPR-TV/CHFD-TV	N/A	http://www.tbsource.com/Sports/

5. Network web sites that cover sports news and information

Service	Station Ownership	Brief Description	URL
MSNBC (digital)	MSN and Microsoft	It offers programming dealing with domestic and international news and information	www.msnbc.com
CBC English	CBC	CBC full network service reaches approximately 85% of the English-speaking population	http://www.cbc.ca
CTV	CTV	In all the CTV Television Network reaches 99% of English-speaking Canadians	www.ctv.ca
Global	CanWest Global Communications Corp.100%	The Global Television Network and over thirty CanWest Newspaper Publications support the canada.com network by supplying Canadians with the most relevant and up-to-date news and information.	www.canada.com

6. Sports specialty networks

Service	Station Ownership	Brief Description	Website Ownership	URL
TSN-The Sports Network Inc.	68.46% by CTV	TSN is the most-watched Canadian specialty channel and offers a world-class sports programming schedule.	68.46% by CTV	http://www.tsn.ca/
Outdoor Life Network	33.33% by CTV	A 24-hour specialty network that delivers the most compelling and comprehensive selection of outdoor programming for athletes and explorers of all ages.	33.33% by CTV	http://www.tsn.ca/oln/
Sportsnet	CTV and ExtendMedia	CTV and ExtendMedia built this site to allow fans to watch regional Canadian events such as NHL hockey, the CHL playoffs, the memorial Cup tournament from the Web site.	CTV and ExtendMedia	http://www.sportsnet.ca/index.jsp
The Score	Headline Media Group Inc.	This specialty network is available in every major market in Canada. It offers 24-hr sports highlights and information.	Headline Media Group Inc.	http://www.thescore.ca
ESPN Classic Canada (digital)	68.46% by CTV	ESPN Classic Canada showcases some of the greatest moments in sports.	68.46% by CTV	http://www.tsn.ca/classic/
NHL Network (digital)	14.66% by CTV	The NHL Network fuels the passions of hockey-mad viewers, taking them from rink to rink each night of the hockey season.	14.66% by CTV	http://www.tsn.ca/nhl_network/

Fox Sportsworld Canada (digital)	CanWest	Bringing the entire world of international sporting news and events to Canada, Fox Sportsworld covers sports from classic cricket and premier league soccer to Aussie Rules football.	CanWest	http://www.canada.com/entertainments/foxsports/
Xtreme Sports (digital)	CanWest	From Survival of the Fittest and Sportsmania to Thai KickBoxing and International Surfing, Xtreme Sports programs high voltage events from around the world.	CanWest	http://www.canada.com/entertainments/xtremesports/
Leafs TV (digital)	Maple Leaf Sports & Entertainment Ltd. (owners of the Toronto Maple Leaf Hockey Club and Air Canada Centre)	Leafs TV is the only station in North America dedicated to one team, providing the loyal fans of the Blue and White exclusive, in-depth information on everything you can imagine surrounding the Toronto Maple Leafs.	Toronto Maple Leafs and Braegen Group	http://www.torontomapleleafs.com/
Raptors NBA TV (digital)		Raptors programming will include pre- and post-game shows, behind-the-scenes features along with some independent productions and hopefully give the Raptors more Canadian exposure.		http://www.nba.com/raptors/news/ro.html

7. Code sheet

1 Coder name:

2 Coding Date (month and day and year):

3 Television station name:

4 URL:

5 Network owned station or independent station

Value	Label
1	network owned station
2	independent station

6 Public or private broadcaster service

Value	Label
1	public broadcaster service
2	private broadcaster service

7 General station or sports specialty station

Value	Label
1	general station
2	sports specialty station

8 Number of complete "page downs" to move from top to bottom

9 Background color:

Value	Label
70	multicolor
71	white
72	black
73	gray
74	blue

75	red
76	yellow
77	green
78	purple
79	orange

10 Hierarchical navigation

Value	Label
0	not present
10	present

11 Ad hoc

Value	Label
0	not present
10	present

12 Sub-site

Value	Label
0	not present
10	present

13 Pull-down menus (or pop-up menus)

Value	Label
0	not present
10	present

14 Navigation aids (table, or index, or site map)

Value	Label
0	not present
10	present

15 Navigation aids (the browsed path)

Value	Label
0	not present
10	present

16 Navigation bars

Value	Label
1	text-based
2	graphical-based

17 Frames:

Value	Label
0	not present
10	present

18 Horizontal scrolling

Value	Label
0	not present
10	present

19 Layout format

Value	Label
80	top/bar/left
81	top/bar/right
82	top/bar/both
83	left bar page
84	right bar page
85	left/right page
86	multi-frame
87	others

20 Sports news timeline

Value	Label
90	daily
91	weekly
92	monthly
93	can't tell

21 The rolling updated sports news

Value	Label
0	not present
10	present

22 Breaking sports news

Value	Label
0	not present
10	present

23 Top or highlighted sports news everyday

Value	Label
0	not present
10	present

24 Number of top or highlighted sports news

25 Sports features such as everyday tip, today in the sports history and etc

Value	Label
0	not present
10	present

26 Sports headlines

Value	Label
0	not present
10	present

27 Number of sports headlines

28 Sports score

Value	Label
0	not present
10	present

29 Sports issue, or analysis, or editorials beyond the score and headline, or viewpoints from columnists

Value	Label
0	not present
10	present

30 Online sports store

Value	Label
0	not present

10	present

31 Direct ordering

Value	Label
0	not present
10	present

32 Merchandise catalogue

Value	Label
0	not present
10	present

33 Ticket information

Value	Label
0	not present
10	present

34 Sports Channel logo or letters

Value	Label
0	not present
10	present

35 Download of pictures as screensaver

Value	Label
0	not present
10	present

36 TV schedule

Value	Label
0	not present
10	present

37 Trivia or contest

Value	Label
0	not present
10	present

38 Fantasy game

Value	Label
0	not present
10	present

39 Voting polls

Value	Label
0	not present
10	present

40 Giveaways

Value	Label
0	not present
10	present

41 Station staff biography

Value	Label
0	not present
10	present

42 Number of clickable graphics associated with sports information

43 Still photos or images associated with sports news

44 Blinking or scrolling text or image associated with sports (excluded advertising)

Value	Label
0	not present
10	present

45 Unsolicited audio, video, or link to audio clip, video clip

Value	Label
0	not present
10	present

46 Animation

Value	Label
0	not present

10	present

47 Bundled interactivity zone

Value	Label
0	not present
10	present

48 Trivia or contest

Value	Label
0	not present
10	present

49 Fantasy game

Value	Label
0	not present
10	present

50 Voting polls

Value	Label
0	not present
10	present

51 Giveaways

Value	Label
0	not present
10	present

52 Bundled entertainment zone

Value	Label
0	not present
10	present

53 User preferences (browser, colour, speed, language)

Value	Label
0	not present
10	present

54 Customizable news

Value	Label
0	not present
10	present

55 Searchable audio or video

Value	Label
0	not present
10	present

56 Search engine for sports specifically

Value	Label
0	not present
10	present

57 Download of pictures as screensaver

Value	Label
0	not present
10	present

58 Incorporated upload capacity

Value	Label
0	not present
10	present

59 Links to sports content related

Value	Label
0	not present
10	present

60 Number of links to sports content related

61 Links to other parts of station like syndicated programming, sister station, magazine, newspaper

Value	Label
0	not present
10	present

62 Number of links to other parts of station like syndicated programming, sister station, magazine, newspaper

63 Links to third-party (advertising) site

Value	Label
0	not present
10	present

64 Number of links to third-party (advertising) site

65 Links to other information than sports news within the site

Value	Label
0	not present
10	present

66 Number of links to other information than sports news within the site

67 Registration to use parts of site

Value	Label
0	not present
10	present

68 Visitor Counter

Value	Label
0	not present
10	present

69 Contact sports station

Value	Label
0	not present
10	present

70 Sports chat room location

Value	Label
0	not present
10	present

71 Sports bulletin board, opinion post location

Value	Label
0	not present
10	present

72 Number of product/service ads

73 Number of public service ads

74 Number of corporate ads

75 Number of political ads

76 Number of issue ads

77 Number of cycling ads

78 Number of banner ads

79 Number of pop-up

80 Number of interstitial ads

81 Number of superstitial ads

82 Number of splash page ads

83 Number of sponsorship ads

84 Number of hyperlink

85 Number of email

86 Number of skyscraper, 120 x 600 pixels

87 Number of wide skyscraper, 160 x 600 pixels

88 Number of full banner, 468 x 60 pixels

89 Number of half banner, 234 x 60 pixels

90 Number of vertical banner, 120 x 240 pixels

91 Number of button 1, 120 x 90 pixels

92 Number of button 2, 120 x 60 pixels

93 Number of square button, 125 x 125 pixels

94 Number of micro bar, 88 x 31 pixels

95 Number of leaderboard, 728 x 90 pixels

96 Number of Large Rectangle, 336 x 280 pixels

97 Number of Rectangle, 180 x 150 pixels

98 Number of vertical Rectangle, 240 x 400 pixels

99 Number of medium Rectangle, 300 x 250 pixels

100 Number of square Pop-Up, 250 x 250 pixels

101 Number of ads on the fixed bar on the top

102 Number of ads above the fold except the ones on the top bar

103 Number of ads below the fold

8. Glossary

Above The Fold - Any area of a web page that is viewable without the viewer having to use the vertical scroll bar. Ad space in this area is usually more expensive since it is more likely to be viewed by the visitor (Online Advertising Glossary, http://www.adglossary.com/).

Advertorial - An advertisement styled to resemble the editorial format and typeface of the content in which it runs. Often generates higher response rates (Online Advertising Glossary, http://www.adglossary.com/).

Banner - A graphic that appears on a web page that is usually hyperlinked to an advertiser's website. It may be in a variety of formats including GIF, JPEG, Flash, HTML, Java, JavaScript & more (Online Advertising Glossary, http://www.adglossary.com/). A banner may play audio and/or video content after a user clicks on it, and should display a visible "stop" or "pause" button once the audio/video begins (Rich Media Guidelines, http://www.iab.net/standards/guidelines.asp).

Static banner – banner ad is the hyperlink to the advertiser's own site (Stout, 1997).

Rotating banner – animated ad that changes by itself (Stout, 1997).

Button - A type of advertising unit that is smaller than a banner and usually placed in parts of a web page where space is limited such as in narrow columns on the left or right side of a page (Online Advertising Glossary, http://www.adglossary.com/).

Cookies - A process by which a small file is sent from a web server to the local users' computer to store information unique to that browser. It is often used by advertisers to keep track of the number and frequency of advertisements that have been shown to a visitor or by sites to help them determine the number of unique visitors (Online Advertising Glossary, http://www.adglossary.com/).

Cycling advertisement – one that changed content frequently (several times a minute) (Bucy, Lang et al., 1999).

Flash - A software plug-in that enables browsers to play multimedia animations. Some rich media advertisements require users to have this plug-in (Online Advertising Glossary, http://www.adglossary.com/).

Frames - In creating a Website, frames is the use of multiple, independently controllable sections on a Web presentation. This effect is achieved by building each section as a separate HTML file and having one "master" HTML file identify all of the sections. When a user requests a Web page that uses frames, the address requested is actually that of the "master" file that defines the frames; the result of the request is that multiple HTML files are returned, one for each visual section. Links in one frame can request another file that will appear in another (or the same) frame. A typical use of frames is to have one frame containing a selection menu in one frame and another frame that contains the space where the selected (linked to) files will appear (searchWebServices.com).

GIF – acronym and file name extension for the "Graphic Interchange Format", an image file format universally understood by all graphical Web browsers. GIF files have a palette of 26 colors, and also be made into simple animations (Schengili, 1997).

Hyperlink - HTML code that when clicked on redirects ones browser to another web page. Most banners are hyperlinked to the advertisers' web page (Online Advertising Glossary, http://www.adglossary.com/).

Image Map - an image map is a graphic image defined so that a user can click on different areas of the image and be linked to different destinations (searchWebServices.com).

IMU (Interactive Marketing Unit) ad format – IAB stipulates online ads size as following (http://www.iab.com/standards/adunits.asp#):

Rectangles and Pop-Ups

300 X 250 IMU - (MEDIUM RECTANGLE)
250 x 250 IMU - (Square Pop-Up)
240 x 400 IMU - (Vertical Rectangle)
336 x 280 IMU - (Large Rectangle)
180 X 150 IMU - (RECTANGLE)

Banners and Buttons	468 x 60 IMU - (Full Banner) 234 x 60 IMU - (Half Banner) 88 x 31 IMU - (Micro Bar) 120 x 90 IMU - (Button 1) 120 x 60 IMU - (Button 2) 120 x 240 IMU - (Vertical Banner) 125 X 125 IMU - (SQUARE BUTTON) 728 x 90 IMU - (Leaderboard)
Skyscrapers	160 x 600 IMU - (Wide Skyscraper) 120 x 600 IMU - (Skyscraper)

Interstitial - An intrusive type of advertisement that loads between web pages without having been requested by the visitor, similar to superstitials except they do not load in the background (Online Advertising Glossary, http://www.adglossary.com/).

JavaScript - JavaScript is a cross-platform, object-based scripting language developed by Netscape for client and server applications. It is commonly used on web pages to add interactivity and dynamic content such as banner rotation (Online Advertising Glossary, http://www.adglossary.com/).

JPG – the acronym and filename extension for the Joint Picture Experts Group (JPEG) image file format. It has a color palette of over 16 million colors, and offers the greatest compression ratio of all the image file formats commonly used on the Web (Schengili, 1997).

Non-cycling advertisement - remaining one fixed on one product or service (Lang, Potter and Grabe, 1999).

Palette – is the number of colors available to a particular computer display. Most Unix and Macintosh computers tend to support the upper-end of 16.7 million color palette or the intermediate 65,536 color

PNG – is the acronym and filename extensions for the "Portable Network Graphics" image file format, devised as a successor to the GIF format. It can support a full 16.7 million color palette, and it often provides a smaller file size that an equivalent GIF image (Schengili, 1997).

Pop-up - Pop-ups automatically launch in a new browser window when a Web page is loaded (Rich Media Guidelines, http://www.iab.net/standards/guidelines.asp).

Portal – a Website that acts as a gateway, or launch point, through which users navigate the World Wide Web (Hills & Michalis, 2000).

Rich Media - A type of advertisement technology that often includes richer graphics, audio or video within the advertisement. Unlike static or animated GIF banner advertisements, rich media advertisements often enable users to interact with the banner without leaving the page on which it appears. Some popular types of rich media banners are created with HTML, Shockwave & Flash (Online Advertising Glossary, http://www.adglossary.com/).

Screen resolution – the horizontal and vertical height and width of the computer screen in pixels. The three most common screen resolutions are 640 x 480, 800 x 600, and 1024 x 768.

Shockwave - A software plug-in that enables browsers to play multimedia animations. Some rich media advertisements require users to have this plug-in (Online Advertising Glossary, http://www.adglossary.com/).

Supertitials - Rich media advertisements that download in the background while a visitor is reading a web page and launch a browser window only when it has complete downloaded. They are attractive to advertisers as they permit larger and more interactive ads than a traditional banner and since they preload in the background are not as annoying as pop ups and interstitials (Online Advertising Glossary, http://www.adglossary.com/).

Skyscraper - A type of ad unit that is much taller than it is wide. It is often used in columns of web pages where there is allot of unused vertical space but limited horizontal space (Online Advertising Glossary, http://www.adglossary.com/). A skyscraper may play audio and/or video content after a

user clicks on it, and should display a visible "stop" or "pause" button once the audio/video begins (Rich Media Guidelines, http://www.iab.net/standards/guidelines.asp).

Splash Page - Also known as a "jump page" or "interstitial", a splash page is special entrance page to a site. Advertisers often use it to direct people who click on a particular banner to more information about what the banner was regarding rather then sending them directly to the sites homepage. This can be useful for banners advertising free registrations, contests, coupons or other special offers the advertiser does not want to put on the sites main page. Can also help track click-throughs (Online Advertising Glossary, http://www.adglossary.com/).

Sponsorships - A form of advertising in which an advertiser pays to sponsor a section of a website. It may take the form of the typical banner and/or text that mentions "this section sponsored by: " Works best when the content of the sponsored web page is directly related to but not competitive with the advertisers' products or services (Online Advertising Glossary, http://www.adglossary.com/).

Site Map - A site map is a visual or textually organized model of a Website's content that allows the users to navigate through the site to find the information they are looking for, just as a traditional geographical map helps people find places they are looking for in the real world. A site map is a kind of interactive table of contents, in which each listed item links directly to its counterpart sections of the Website (searchWebServices.com).

URL - Uniform Resource Locator (URL) is the Internet "address" of a website or web page on the World Wide Web. For example our site URL is http://www.adratesonline.com. A browser requires this information in its location box in order to load a web page, can be pronounced "you-are-ell" or "earl." (Online Advertising Glossary, http://www.adglossary.com/). A complete URL includes the protocol the browser uses to access the file, server or domain name, the relative path, and the filename (Sklar, 2000).

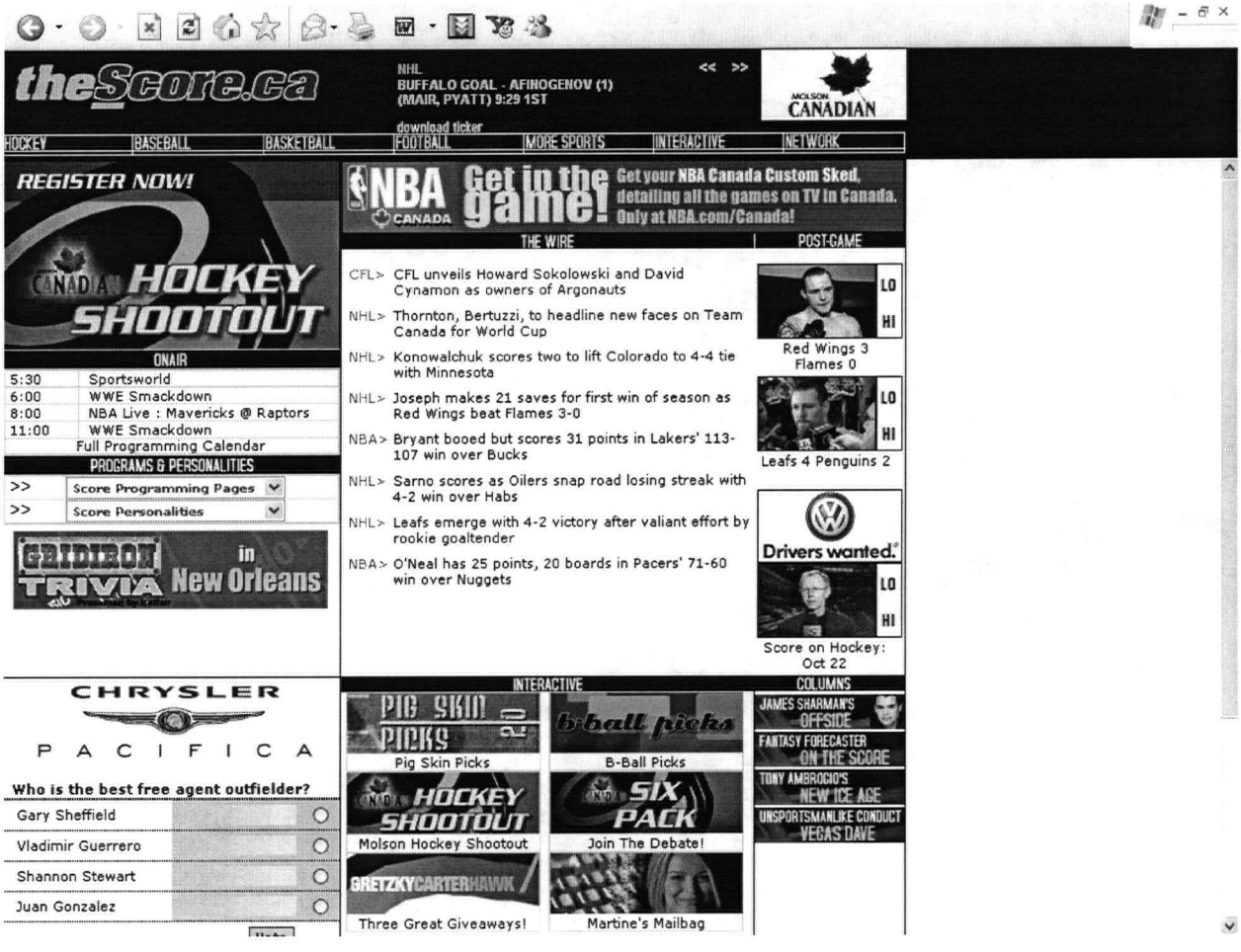
Website - A collection of hyperlinked web pages organized at the same domain name (Online Advertising Glossary, http://www.adglossary.com/).

Webmercials - Full screen animated ads accompanied by professional voice over and sound effects. Usually appear between web pages for 5-30 seconds and used for branding purposes.

9. TSN home page

10. Leafs TV home page

11. The Score home page



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