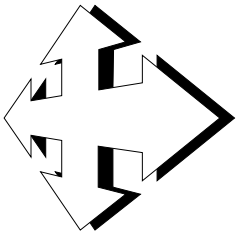

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rigour – transparency – creativity – relevance

Conventional radio, Internet radio and satellite radio: a 2005 literature scan

Final report

Prepared for

Association québécoise de l'industrie du disque, du spectacle et de la vidéo
6420 St-Denis Street
Montréal, Québec H2S 2R7

March 10, 2006

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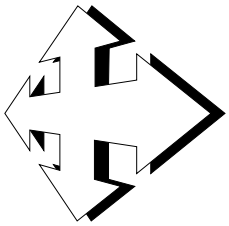

Benoît Gauthier

management and research consulting

March 2006

President, ***Circum*** *Network Inc.*
Adm.A., CMC, CMRP

Mr. Gauthier has very strong experience in research — in academic, private and public settings. He has specialized in strategic and organizational research and intervention, in market research, in program evaluation, in applied social research and in policy analysis. Over the years, his involvement in more than 400 research and intervention assignments has allowed him to build a particular expertise in the measurement and the management of client satisfaction, health and social services, technology, immigration, housing, human resource management, arts and culture, and management information systems. From a methodological standpoint, Mr. Gauthier has developed an enviable reputation as a top level quantitative and qualitative analyst as well as a strong project manager.

After his doctoral studies, Mr. Gauthier has successively occupied the positions of chief of research in a branch of Justice Canada, senior evaluator at the Canada Mortgage and Housing Corporation, evaluation manager then director of program evaluation at Communications Canada

and senior vice president and chief of operations at Ekos Research Associates. Early in 1996, he founded Circum Network Inc.. Since then, Mr. Gauthier has developed an interest for organisational management issues; this interest has allowed him to bridge measurement concerns and management concerns. He has acquired the Certified Management Consultant and the Certified Marketing Research Professional certifications. He is a member of the Ordre des administrateurs agréés du Québec.

Mr. Gauthier has taught social research methodology, program evaluation and decision making methods at the undergraduate and graduate levels at the Quebec École nationale d'administration publique, at the University of Ottawa and at the Université du Québec à Hull. He is still involved in teaching at ÉNAP et UQAH. He is the editor of the textbook entitled *Recherche sociale : de la problématique à la collecte des données*, an introduction to social research which has gone through four French editions so far (1984, 1992, 1997, 2003; Presses de l'Université du Québec) and one Portuguese edition (2003; Lusociência).

Mr. Gauthier has completed a masters degree in political science at Université Laval, a masters degree in public administration at ENAP and the course work and comprehensive examinations towards a doctorate in political science at Carleton University.

STUDIES AND CERTIFICATIONS

- Certified Marketing Research Professional, Professional Marketing Research Society (2004)
- Certified Management Consultant, Canadian Association of Management Consultants (CMC; 1999; certified for the preparation of PSGGR conformity opinions in March 2001)
- Masters (Public Administration), École nationale d'administration publique, Québec (1991)
- Masters Diploma (Public Sector Management), École nationale d'administration publique, Québec (1987)
- PhD, course work and comprehensive examinations (Political Science), Carleton University, Ontario (1984)
- Masters (Political Science), Laval University, Québec (1979)
- BA (Political Science), Laval University, Québec (1978)

ADDITIONAL TRAINING

- *Formation en saine gestion des entreprises et des organisations, Part B*, Seminar from the Ordre des administrateurs agréés du Québec given by Deveaux Brault et Associés, December 2000

- *Formation en saine gestion des entreprises et des organisations, Part A*, Seminar from the Ordre des administrateurs agréés du Québec given by Deveaux Brault et Associés, October 1999

- *Atelier de saine gestion I*, Seminar from the Ordre des administrateurs agréés du Québec, March 1999

- *Service Quality and Customer Satisfaction Measurement*, Seminar given by Chuck Chakrapani on behalf of the Professional Marketing Research Society, November 1996

PROFESSIONAL AFFILIATIONS

- Certified Management Consultant (CMC); certified for the preparation of PSGGR conformity opinions
- Member, Ordre des administrateurs agréés du Québec (Adm.A.)
- Member and webmaster, Canadian Evaluation Society; 2002 CES Exemplary Service Award
- Member, Société québécoise d'évaluation de programmes
- Member, American Evaluation Association
- Certified Marketing Research Professional (CMRP) and professional member, Marketing Research and Intelligence Association
- Member, American Association for Public Opinion Research
- Member, World Association for Public Opinion Research

CONFERENCES SINCE 2000

- *Survey of Evaluation Practice and Issues in Canada*, presentation to the 2005 Canadian Evaluation Society and American Evaluation Association Conference, Toronto, October 26, 2005.

- *A Strategic Analysis of the Situation of Program Evaluation in Canada*, organization of a panel for the 2003 Canadian Evaluation Society Conference, Vancouver, June 2, 2003.

- *Satisfaction de la clientèle: mesure et utilisation*, Presentation to the Quebec City Chapter of the Professional Marketing Research Society, April 15, 2003.

- *La copie privée au Canada, 1998-2000*, presentation to the Rencontres professionnelles de l'industrie québécoise du disque, du spectacle et de la radio, March 21, 2002.

- *Assessing Survey Research, A Principled Approach*, presentation at the 2001 Canadian Evaluation Society conference, Banff, May 21, 2001.

- *Learning about survey research through a principled approach*, half-day workshop offered at the 2001 Canadian Evaluation Society conference, Banff, May 20, 2001.

- *Assessing Survey Research, A Principled Approach*, presentation at the 2001 conference of the American Association for Public Opinion Research, Montreal, May 19, 2001.

- *Assessing Survey Research, A Principled Approach*, presentation at the 2001 *Riding the Communications Revolution* Professional Marketing Research Society conference, Ottawa, April 24, 2001.

- *Comment mesurer adéquatement le taux de satisfaction de sa clientèle?*, half-day workshop at the conference entitled *Le service à la clientèle: virage-client dans le secteur public*, organized by the Institute for International Research, Quebec, January 24, 2001.

- *La mesure de la satisfaction de la clientèle*, one-day workshop for the Société québécoise d'évaluation de programmes, Quebec, October 5, 2000.

- *Internet and Program Evaluation, The Non Existent Relationship*, presentation for the National Capital chapter of the Canadian Evaluation Society, Ottawa, September 26, 2000.

- *L'évaluation de la satisfaction de la clientèle, méthodes et limites*, half-day workshop at the 2000 Joint Annual Conference of the Canadian Evaluation Society and of the Société québécoise d'évaluation de programme, Montréal, May 14, 2000.

PAST PROFESSIONAL EXPERIENCE

Executive Vice-President and Chief of Operations, Ekos Research Associates, 1989-1996

- Management and participation in almost 100 research assignments dealing primarily with program evaluation and public opinion research. A thematic list of projects is appended.
- Daily management of a company staffed with 25 full time employees and about 150 part time employees.

Director of Program Evaluation, Communications Canada, Ottawa, 1988-1989

- Responsible for the quality, the usefulness, the pertinence and the synchronization of evaluation studies and their transcription into strategic advice

Senior Program Evaluation Manager, Communications Canada, Ottawa, 1986-1988

- Management of program evaluation studies used by the department for strategic planning, resource allocation and program planning and analysis

Senior Program Evaluation Manager and Methodologist, Canada Mortgage and Housing Corporation, Ottawa, 1983-1986

- Preparation of program evaluation studies used by the department in strategic planning and in program planning and analysis

Chief of Research, Canadian Unity Information Office, Ottawa, 1983

- Management of a multidisciplinary team dealing with requests for program evaluation studies, market research studies, mass communication research and attitude and opinion measurement.

MAIN PUBLICATIONS

BOOKS

Recherche sociale : de la problématique à la collecte des données, Québec, Presses de l'Université du Québec, 1984, second edition 1992, third edition 1997, fourth edition 2003, 529 pages
(*Recherche sociale* was published in Portuguese in 2003 by Lusociência under the title *Investigação Social*)

PUNCH Documentation, user manual for the PUNCH software, ***Circum** Network Inc.*, 1996-1999, 100 pages

Recherche sociale : cahier d'exercices, Québec, Télé-Université, Université du Québec, 1988, second edition 1993, 367 pages

Recherche sociale : corrigé des exercices, Québec, Télé-Université, Université du Québec, 1988, second edition 1993, 150 pages

SAS, manuel d'introduction, with Jean Crête, Ottawa, Ottawa University Bookstore, 1983, 165 pages

Méta-évaluation en affaires sociales : analyse de cent cas d'évaluations de programmes, Québec, Conseil québécois de la recherche sociale, Social Affairs Department, 1983, 304 pages

Logement et politiques gouvernementales : le cas de Donnacona, Québec, Université Laval, Master's thesis published by the Laboratoire d'études politiques et administratives, 1979, 265 pages

ARTICLES

"Enquête sur les pratiques et les enjeux de l'évaluation au Canada", *Bulletin de la Société québécoise d'évaluation de programme*, volume 18, no. 2, December 2005, with Shelley Borys, Natalie Kishchuk et Simon Roy.

"Are all samples of telephone numbers created equal?", *Vue*, February 2005, pages 14-17.

"Electronic Collaboration Tools: Opening Up a New World of Possibilities for Evaluators", *Evaluation Exchange*, vol. 10, no. 3, fall 2004, page 21 (http://www.gse.harvard.edu/hfrp/eval/issue27/pp4.html)

"The lay of the land: evaluation practice in Canada today" (*et alii*), *Canadian Journal of Program Evaluation*, vol. 19, no. 1, Spring 2004, pages 143-178.

"Le concours de simulation : le point de vue d'un juge", *Canadian Journal of Program Evaluation*, vol. 18, no. 1, Spring 2003, pages 119-126.

"Performance tools — Web data collection", *Measuring Up*, vol. 1, no. 4, October 2002, pages 19-20.

"Conservateurs et réformistes, le mariage impossible" (with François-Pierre Gingras), *Le Droit*, June 13, 1997, page 17

"L'avenir de la droite fédérale en Ontario passe-t-elle par la fusion du Parti réformiste et du Parti progressiste-conservateur ?" (with François-Pierre Gingras), http://circum.com/textes_e.htm, June 4, 1997.

"La question du chômage et le caractère dinstinctif de l'électorat québécois au scrutin fédéral de 1993" (with François-Pierre Gingras and Frank Graves), *Revue québécoise de science politique*, no. 27, spring 1996, pp. 51-122.

"Lecture et société", *Documentation et bibliothèques*, January 1994

"L'avenir de l'évaluation au Québec et la place des conseillers privés et universitaires", *L'avenir de l'évaluation au Québec*, proceedings from the November 18, 1991, conference organised by the Société québécoise d'évaluation de programmes and the École nationale d'administration publique, 1992, pp. 55-63

"Évaluation des programmes de sciences et de technologie dans une perspective ministérielle", *L'évaluation de programmes : Bulletin d'actualités*, November 1989, pp. 5-6

"Client Satisfaction and Program Evaluation", *Social Indicators Research*, vol. 19, no. 2, 1987, pp. 229-254

"La satisfaction de la clientèle en évaluation de programmes", *Newsletter: Canadian Evaluation Society*, vol. 5, no. 4, winter 1986, pp. 10-13

"La satisfaction des clients en évaluation de programmes", *L'évaluation de programmes : Bulletin d'actualités*, Bureau du Contrôleur général du Canada, April 1986, pp. 2-3

"Méta-évaluation en affaires sociales", Conseil québécois de la recherche sociale, *Actes du Colloque sur la recherche sociale*, Québec, Québec Government, 1984, pp. 67-78

"Le mode de scrutin : une fausse justification", *Le Devoir*, August 25, 1982, p. 11

"Les femmes à l'Assemblée nationale", *Le Devoir*, July 16, 1982, p. 13

"Les sondages ne mentent pas, c'est leur traitement journalistique qui serait déficient", *Le Devoir*, April 13, 1982, p. 17

BOOK REVIEWS

Twenty book reviews in *Politique* and in the Canadian Political Science Review

Chapter 1

INTRODUCTION

On January 13, 2006, the Canadian Radio-television and Telecommunications Commission (CRTC) issued a Notice of Public Hearing (CRTC 2006-1) concerning its Review of the Commercial Radio Policy. In its Notice, the CRTC notes that

> The seven years since the 1998 Policy came into effect have seen the advent of new digital technologies and methods of distribution that are having a profound effect on the way in which people, particularly young people, obtain and listen to music. This is presenting the radio industry with new opportunities, but also new challenges: in addition to the satellite radio services now available, file-sharing, podcasting, downloading, and audio streaming, all facilitated through the increasing ubiquity of the Internet, offer new and often more flexible alternatives to the traditional practices of purchasing recorded music and listening to radio broadcasting.

The CRTC asks specifically: "What is the likely impact of other audio technologies, such as satellite radio, Internet radio, podcasting, file sharing and down-loading, on commercial radio and the music industry?"

The *Association québécoise de l'industrie du disque, du spectacle et de la vidéo* has asked Circum Network Inc. to conduct an independent review of

the recent literature on this issue. Based on existing documentation, our mandate is:

- to assess the quality and reliability of the study methodologies;
- to document the main findings on the evolution of financial results and market shares;
- to identify the results relative to consumer profiles characteristics of each type of radio;
- to summarize the likely impact of satellite and Internet radio on conventional radio.

The research reports reviewed in this document were selected by the consultant and ADISQ with a view to offer a wide scan of the 2005 literature on the relevant topics. More than 30 reports were identified and 11 were selected for analysis because of the breadth and depth of their analysis and because of the complementarity of the lines of enquiry. Note that the vast majority of the sources available document with the situation in the United States; satellite radio has been available in the United States since 2001 (about five years earlier than in Canada) and many other technological innovations (with the notable exception of broadband Internet access) tend to take root later in Canada than in the US.

The rest of this report synthesizes the findings into four sections:

- each research report reviewed in analysis is presented and assessed in chapter 2;
- financial results and market shares are analysed in chapter 3;
- consumer profiles are described in chapter 4;
- impacts on conventional radio are outlined in chapter 5.

Chapter 2

REPORTS REVIEWED

This chapter presents the documentary sources used in this report and provides information useful to assess their validity and reliability. Note that the corpus of documents does not represent a random sample of all possible documents; it was selected to represent a variety of view points. When reaching the last few documents, the author also observed evidence of theoretical saturation: the same information and sources started to get repeated.

2.1 Sources

Canada Online!

Bibliographic information: Canada Internet Project, *Canada Online!*, 2005.

Canada Online! is the final report of the baseline study conducted by the Canada Internet Project, a multi-institution, multi-partner research project. It is based on a telephone survey of 3,014 adult Canadians contacted between May 19, 2004 and June 14, 2004 and selected, within households, using the next-birthday method. The sample included listed

and computer-generated telephone numbers; it was stratified so as to over-represent the French-speaking component of the Canadian population. Assuming that the sample behaves like a simple random sample, the sampling error amounts to ±1.8 percentage point for a proportion of 50% at a confidence level of 95%. The data were weighted according to region, language, age and gender to be representative of the Canadian population according to the 2001 Census. The research report does not mention the response rate achieved during data collection, thereby making it difficult to assess the representativeness of the sample.

Internet and Multimedia 2005

Bibliographic information: Arbitron/Edison Media Research, *Internet and Multimedia 2005: The On-Demand Media Consumer*, 2005

Internet and Multimedia 2005 is based on 1,855 telephone interviews of US residents aged 12 or more. The interviews were conducted between January 13 and February 2, 2005. Some 89% of the sample was derived from a random sample of Arbitron's Fall 2004 diary research participants; the balance is a fill-in sample based on random digit dialling. The research report does not mention the response rate achieved during data collection, nor does it provide any insights into the quality of the sample. It is therefore not possible to assess the representativeness of the sample.

Deutsche Bank reports

Four Deutsche Bank reports are reviewed as part of this assignment. They deal with Sirius Satellite Radio (2005), XM Satellite Radio (2006), Broadcasting Spectrum (2005) and Audio Signals (2005). In all cases, the sources of the information supplied are unspecified and the projection models are not documented. Such lack of methodological information makes it impossible to ascertain the quality of the conclusions reached.

Paragon Research

Bibliographic information: Paragon Research, *Radio Still Strong Despite New Media's Growth*, 2005

This document is a collection of some 90 slides reporting on a survey of 400 American respondents aged 15 to 64. No information is available about the type of data collection, its timing and field results. It is therefore impossible to ascertain the quality of the information provide. Results must be handled with circumspection.

Internet Use in Canada

Bibliographic information: Statistics Canada, *Internet Use in Canada*, 2004

Released in 2004, the results of the most recent *Internet Use in Canada* are based on telephone interviews of 23,113 Canadians aged 15 or more conducted in January 2004. Since this is a household-based survey, the respondent answers a proxy survey on behalf of all household members. The Household Internet Use Survey uses a sub-sample of the Canada Labour Force Survey (LFS) — with a sample design closely tied to that of the LFS. The data are post-weighted to the Canadian Census figures. Statistics Canada reports having initiated the field work with a sample of 34,674 respondents from the LFS; considering that the data base includes 23,113 respondents, this translates into a 67% response rate — on top of the 91% response rate obtained in response to the underlying LFS survey. As expected of a government data collection agency, Statistics Canada provided an extensive and convincing analysis of the quality of its methodology.

Canadian Film and Music Opinion Study

Bibliographic information: Decima Research, *Canadian Film and Music Opinion Study*, 2005, prepared for Canadian Heritage

This study is based on a telephone survey of 2002 Canadians aged 15 or more (including a supplementary sample of Quebec residents). The data were collected between May 23 and May 31, 2005 and post-weighted by gender, age and region according to the 2001 Census data. Field results (such as response rates) and other quality indicators are not supplied — making it difficult to draw conclusions on the validity and reliability of the results.

Emerging Technologies

Bibliographic information: Mintel, *Emerging Technologies: Satellite Radio*, 2004

The Mintel report draws upon a variety of sources to paint a profile of the satellite radio sector and to offer projections into the near future. Since no single source of data is used, it is difficult to assess the overall value of the information supplied. The purpose of the Mintel report is to "explore the hypothesis that the satellite radio industry will continue to achieve exponential growth over the next five years" (2004, 1).

This report indicates (2004, 33) using one source of original data, i.e., a Web panel survey conducted through Greenfield Online, Inc. to explore consumer usage of and attitudes towards satellite radio and a wide range of other electronics. Fieldwork was conducted in May 2004 among a sample of 2,000 adults aged 18 and over. The report does not provide enough information to assess the validity and reliability of the findings. The report does not clarify that the survey was conducted on-line, with the biases inherent to such research.

AMS Radio Index

Bibliographic information: OmniTel, *AMS Radio Index*, January 2006

This report[1] is a simple technical account of the results of 1,000 telephone interviews of American residents aged 18 or more conducted in January 2006 using the Omnitel omnibus survey. The Omnitel omnibus uses random digit dialling to build a probability sample of American households. Telephone numbers are retired after five call attempts. Results are weighted to population representation according to age, sex, education, race and region. No information is available on field results; it is therefore not possible to render judgment on the validity and reliability of the findings.

[1] In fact, there are two reports, one per use of the Omnitel omnibus survey.

Here Comes Online Radio

Bibliographic information: Borrell Associates Inc., *Here Comes Online Radio*, 2004.

The Borrell Associates Inc. report is entirely based on secondary sources. The original sources of data are not assessed and no technical information is offered to help draw conclusions on the worth of the findings.

Online Music: Downloads, Streaming, Radio, Mobile

Bibliographic information: eMarketer, *Online Music: Downloads, Streaming, Radio, Mobile*, 2005

The eMarketer report, like the Borrell Associates Inc. report, is entirely based on secondary sources. The original sources of data are not assessed and no technical information is offered to help draw conclusions on the worth of the findings.

The Future of Radio, 2006-2020

Bibliographic information: Bridge Ratings, *The Future of Radio, an analysis of the social, political and corporate impact and future of Traditional Radio, 2006-2020*, 2006

This Bridge Ratings report appears to be based on an original survey conducted in October 2005 among 2000 US residents. No information is provided beyond this (which is leaned from the chart footnotes); therefore, it is not possible to assess the validity and reliability of the data presented in the study.

2.2 Conclusions on sources

In assessing the sources used, it is useful to distinguish three aspects:

- in most cases, *factual or empirical findings* cannot be assessed because insufficient information is supplied on study approaches, methodologies and data collection results. This is not to say that empirical findings are unreliable or invalid but rather that we do not have the information necessary to assess their reliability and validity;

- the *analyses* are often conducted by individuals and firms with plenty of relevant experience and enjoying good reputations; to the author, this is not a demonstration of quality, but it may be sufficient to give the sources the benefit of the doubt;

- the *market projections* provided in some reports are largely based on unexplained methodologies or proprietary formulas; how valid or credible they are cannot be based in facts and can only be inferred from the analysts' reputation or authority.

While the rest of this document uses the findings from the identified reports, it is important to keep in mind that our conclusions are no better than the sources used — and that the values of these sources is sometimes not assured.

Chapter 3

FINANCIAL RESULTS AND MARKET SHARES

This chapter summarises the information found on financial results and market shares for Internet radio, satellite radio and conventional radio.

3.1 Internet radio

Here Comes Online Radio (2004, 6) estimates that there were 20 million active listeners of online radio (webcasting and simulcasting) in 2004 in the United States — compared to 228 million radio listeners. The report also indicates that, at the same time, there were about 2,000 simulcasting stations in the US versus "several thousand professional and amateur [webcasting] stations". The report later documents that there were about 450 professional US on-line stations in 2004, running about 1,000 channels.

Furthermore, *Here Comes Online Radio* (2004, 7) estimates that 33% of the US radio stations have Web sites as of 2004 and that 44% of these (or 15% of all US radio stations) have streaming audio on their sites.

According to *Canada Online!* (2005, 99), 18% of Internet users reported spending any time listening to the radio on-line. The report further indicates that Internet users spend an average of 41 minutes per week listening to on-line radio — but it is not clear from the text whether this is the average for all Internet users or from Internet users who listen to on-line radio. Also, the report does not distinguish listening to simulcasting stations or webcasting-only stations.[1]

Interestingly, the Deutsche Bank (*Audio Signals*, 2005, 53), in an in-depth review of the US audio signal situation including conventional radio, HD radio, satellite radio, etc. spends very little time analysing the situation of Internet radio. Essentially, the analysts note that Internet radio is likely to gain in popularity with the increased penetration of broadband in the home and office. The Bank estimates (no sources of information supplied) that between 40 and 55 million Americans listen to Internet radio each month and roughly 19 million each week.

Here Comes Online Radio (2004, 14) describes the US Internet radio market as still disorganised in 2004:

> There are no standards for advertising rates, trafficking, audience measurement or invoicing. There is no method for determining how many stations are online, which means there's no calculation for a gross ratings point or share of audience. [...] The local or geography-based audience for online listening is so miniscule (sic) that economics don't support sales (at least not yet). Another challenge is that online listeners are not bound by geography. In fact, Audio Graphic's latest survey found that 37.2% of its online radio network audience doesn't even live in the United States. Even highly localized newspaper Web sites have an average of 36 percent of their traffic coming from outside the local market. Audience multi-tasking also differentiates online radio. This may spell trouble for advertisers looking for direct response or measurable results from their online radio advertising, as they might with other forms of Internet advertising. Clickthroughs may be non-existent, especially if listeners — as we strongly

[1] Other significant on-line activities include reading newspapers or magazines (91 minutes per week), reading or searching for national or international affairs (66 minutes), reading or searching for medical information (59 minutes), playing video games (53 minutes), listening to recorded music (52 minutes), downloading music files (50 minutes) and searching for jobs and classified advertisements (43 minutes).

suspect — minimize the radio player window on their desktops and can't see any associated advertisement.

Therefore, it may not come as a surprise that revenues generated by broadcast radio on the Internet have been low (*Here Comes Online Radio*, 2004, 18): "While newspaper-run Web sites will generate $1.1 billion in online advertising this year and TV stations will haul in an estimated $127 million in Internet advertising, we estimate that broadcast radio stations will generate about $30 million from their Web sites. A handful of sites get $50,000 to $100,000 per year; the vast majority generates less than $5,000."

Whether Internet radio is a competitor of conventional radio is an open question: "The two most notable efforts to attack the Internet are by Clear Channel Communications and Cox Radio. Both have deep corporate resources and have publicly stated that they believe the Internet is a complementary channel for their current broadcast advertisers." (*Here Comes Online Radio*, 2004, 19)

eMarketer (2005, 9) cites the NPD Group: it contends that 54 millions US residents listen to Internet Radio (no specifics provided) compared to 194 million who listen to conventional radio.

In brief...

As can be seen from these findings, the literature is less than precise on the volume of Internet radio listening in the United States and Canada. The literature also does not distinguish webcasting and simulcasting — but these two modes of Internet radio may have different effects on time spent listening (TSL) to conventional radio since simulcasting is likely to increase (or at least not diminish it) global listening time for conventional radio stations whereas webcasting could reduce it.

3.2 Satellite radio

The Deutsche Bank outlook on the satellite radio sector is essentially focussed on the automobile industry (*XM Satellite Radio*, 2006, 1):

> We still believe that the auto opportunity is the key for the satellite radio operators. Through exclusive supply arrangements with XM and Sirius, the auto manufacturers have tipped the scales to satellite radio as the in-vehicle digital audio solution vs other options such as HD radio. We remain more skeptical about the ability of satellite to achieve similar sub growth in the home and portable/wearable segments, where competing technologies are more formidable.

According to the Deutsche Bank, XM possesses about 6 million subscribers as of the end of 2005 (*XM Satellite Radio*, 2005, 14) and its goal of 20 million subscribers by 2010 is achievable (*XM Satellite Radio*, 2005, 3). XM enjoys a 66% market share which is expected to shrink to 53% by 2010 (*Sirius Satellite Radio*, 2005, 12).

According to the Deutsche Bank (*Sirius Satellite Radio*, 2005, 1), Sirius Satellite Radio should enjoy 3.1 million subscribers in the United States by the end of 2005 — a 98% year-over-year increase (*Sirius Satellite Radio*, 2005, 2). This represents a 34% market share in 2005 (expected to rise to 47% by 2010). By 2019, the Deutsche Bank forecasts 35 million subscribers for Sirius.

Sirius 2005 third quarter revenues amounted to 68 million $US (including 2% of ad sales revenue) while operating expenses were 209 million $US. The Deutsche Bank forecasts that Sirius will achieve positive EBITDA in 2008 (*Sirius Satellite Radio*, 2005, 3).

The following is the view of the Deutsche Bank on the Canadian market for Sirius (*Sirius Satellite Radio*, 2005, 2):

> Given the lack of OEM-installed [original equipment manufacturer] units for the Canadian market, we believe that the subscriber growth will be predominantly in the retail channel for the intermediate term. Sirius' interest in the Canadian venture will not be consolidated for financial reporting purposes. We believe Sirius will receive under 50% of the per-subscriber economics of a U.S. subscriber, and the Canadian market is roughly 10% of the size of the U.S. market. As a result, we are not explicitly incorporating projects for the economic value of the Canadian operation in our model at this point.

Sirius and XM results in the United States (millions)

Year	Sirius		XM	
	revenues	subscribers	revenues	subscribers
	$ million	millions	$ million	millions
2001	0	0.0	0.5	0.0
2002	0.8	0.0	20.2	0.3
2003e	12.9	0.3	91.8	1.4
2004	66.9	1.1	244.4	3.2
2005e[1]	231	3.1	547.1	6.0

Source: the Deutsche Bank reports.
[1] These estimates could exceed real results as "To date, the growth estimates made by both firms have often been much more aggressive than actual performance" (Mintel, 2004, 16).

Whereas the Deutsche Bank forecasts 35 million US subscribers to satellite radio by 2010, other experts differ. "In January of 2003, a satellite industry consulting group, The Carmel Group, estimated that the market would grow to 25 million subscribers by 2008. However, XM and Sirius have not achieved the growth as targeted in the first year of that prediction. Mintel and other analysts who follow the category have adjusted the market penetration estimate of 25 million to occur in 2010." (Mintel, 2004, 9). "This forecast is based on multiple assumptions, including expectations on how large the satellite radio market can reasonably grow. Total marketplace penetration of 22 million in 2009 is considered a reasonable estimate of the subscriber base in 2009. This forecast is based on numerous industry sources that expect total marketplace penetration to reach at least 25 million or higher by 2010" (Mintel, 2004, 57).

Bridge Ratings (2006, 16) states, without demonstration, that it projects "15% of the U.S. population will subscribe [to satellite radio] by 2010 — more than 52 million".

Mintel is very prudent in qualifying its market forecasts and emphasises that uncertainty is quite important (2004, 59):

Potential limitations to growth that could significantly alter future projections include innovative technologies that offer similar services. Such service could be provided through cellular or other terrestrial based wireless networks, such as the July 2004 announcement of a deal between Motorola and Apple Computer to offer a service that provides iTunes music for cell phones. Although such systems might only emerge in metropolitan areas and not rural areas, the possibility of new and innovative audio technologies could erode future growth in the satellite radio market.

Conversely, a decrease in price through service bundling, new sources of revenue, or expansion of functionality in satellite radio could drive projections upward. In such an event, penetration of the technology could exceed 2009 projections as a result of better than expected consumer awareness and interest in satellite radio. While many predicted that pay-television services would not succeed, the industry has grown to reach over 70 million households in 2004.

Omnitel estimates the penetration rate of satellite radio at 11% (Omnitel, 2006, wave 2, table 1) using a simple "do you currently subscribe" question. In response to another question, the results of the same company suggest that penetration would be 8% (wave 1, table 11).

Market penetration of satellite radio can be measured in at least three manners:

1) as a percentage of households, which is the method producing the largest estimates. When reviewing US data, one can use the figure of 106 million households in the United states[1]. Statistics Canada indicates that there are 11.5 million households in Canada[2].
2) as a percentage of radio listeners, which provides intermediate figures since the Deutsche Bank reports the number of US radio listeners to be 230 million (XM Satellite Radio, 2006, 3).
3) as a percentage of the sum of households and vehicles, which produces the lowest penetration estimates. The logic of this

1 See Bureau of the Census, US Department of Commerce, *Projections of the Number of Households and Families in the United States: 1995 to 2010*, 1996, http://www.census.gov/prod/1/pop/p25-1129.pdf

2 http://www12.statcan.ca/english/census01/products/highlight/PrivateHouseholds/Page.cfm?Lang=E&Geo=PR&View=1a&Table=1&StartRec=1&Sort=2&B1=Counts

> denominator is that satellite radio receivers are aimed primarily at the living room and car markets; Mintel cites the figure of 250 million vehicles in the United States (2006, 10).

The Deutsche Bank (XM Satellite Radio, 2005, 6) identifies various competitors to satellite radio (wireless spectrum, cell phone downloads, HD radio) but concludes that satellite radio remains in a better position than these alternative technologies.

In brief...

What to make of all of these data? Since it is difficult to get an indisputable measurement of current satellite radio penetration (because of various promotion programs and churn), it is understandable that forecasting take-up be an even tougher call. The sources used here provide estimates ranging from 25 million US subscribers in 2010 (nine years after initial offering) to 52 million. These estimates represent between 7% and 15% of households and vehicles in the US. Analysts express great prudence in making such projections. Finally, one team prefer to not factor in the Canadian satellite radio market in their financial analysis because of its small size.

3.3 Perspectives on the radio sector

In its *Radio and TV Broadcasting* analysis (2005, 6), the Deutsche Bank is extremely prudent with its forecasting. It explains at length that factors affecting the US broadcasting sector are in a flux and that it is very difficult to make a firm prospective about the future — even the near future:

> Our investment thesis is based on a number of assumptions, and the inaccuracy of any of these assumptions could put our investment thesis at risk. The Deutsche Bank Economics Team forecasts US real GDP to increase 3.7% in 2005, accelerating slightly to 4.0% growth in 2006, and an acceleration or deceleration of economic growth could change our investment thesis. In particular, we are monitoring whether rising energy prices may cause a slowdown either in consumer spending or in advertising spending by companies in anticipation of weaker consumer spending. Another risk is the potential for new

> technologies to cause audience or advertising share shifts, either more or less slowly than we anticipate. For example, more rapid adoption of HD radio technology could be bullish for radio listening and advertising, while more rapid migration of audio listening to competing platforms like satellite radio, MP3 players and cell phones could put radio ad revenue growth at risk. There is also the risk that further consolidation or de-consolidation of the broadcasting or satellite radio industries could change economics or valuations in a way which we have not foreseen. Regulatory changes, either to reduce or increase the ability of our covered companies to structure their operations (such as loosening media ownership limitations), could create or destroy value in a manner we have not predicted.

Nonetheless, the same report summarizes the issues the US radio sector faces as follows (2005, 16):

> We believe the key issues radio is addressing are: 1) declining time spent listening, 2) fragmentation risk from new technologies, including satellite in the car, Internet at home and work, and digital music players like the iPod outside of the car, 3) stagnation of local ad revenue share gains, in particular, vis-à-vis newspapers, and, 4) inability to push rate increases for its advertising inventory, either due to lack of new advertisers/ad categories or increases in budgets from existing advertisers.

Despite the significance of these issues, the Deutsche Bank (*Radio and TV Broadcasting*, 2005, 21) predicts positive attraction of local US advertising revenues:

> We believe that a shift to electronic audience measurement, continuing newspaper circulation declines, and lower commercial loads could lead to radio's winning ad budgets targeting reach. We believe that the Arbitron portable people meter (PPM) results from the current Houston test will confirm what the Philadelphia test previously showed: that the typical radio station has a higher cumulative audience but lower time spent listening than has traditionally been shown using diary ratings methods. As newspapers continue to reach a smaller portion of the local audience, advertisers should be more willing to consider shifting some of their budgets to radio to improve the reach of their campaigns. Respondents in the Forrester study of the PPM commissioned by the Radio Advertising Bureau (RAB) and released

> in July said that if the PPM showed that radio had a higher reach than did the diary method, 38% of agencies would increase their radio spending an average of 10% and 44% of advertisers would increase their spending by an average of 13%. In addition, studies such as the Burke study commissioned by Clear Channel indicate that lower commercial loads improve message retention, which could help radio stations sell flights involving a smaller frequency over a broader number of formats designed to achieve a larger unduplicated cumulative audience.

Mintel identifies the four competitive disadvantages of conventional radio compared to satellite radio as (2006, 10):

- annoying advertising;
- poorer sound quality;
- limited range of reception;
- less specific station formats.

It main advantage: it's free! As Mintel puts it: "However, whether or not satellite radio moves into the mainstream marketplace — which includes consumers across many income levels — depends on whether or not mainstream consumers view satellite radio as a worthwhile investment in entertainment" (Mintel, 2006, 11).

Omnitel (2006) explores what US residents like best in "local radio stations". It found the main factors to be "local traffic and weather information" comes first, followed by availability when needed, "being connected to local events" and "information in case of an emergency". Conversely, the least likable features of US local radio stations are as follows: the amount of time for commercials, then "hearing the same things over and over" and the difficulty of finding a station with the type of music one likes.

Omnitel (2006) also asked whether US residents listen to more or less radio (unspecified types but asked right after a series of questions about local radio stations) than five years ago. Fully 34% indicated that they listen to less radio while 18% indicated that they listen to more — for a differential of -16 points. This appears to be particularly true of females (-20 points) and low income households (-27 points) — two groups who are under-represented among satellite radio subscribers according to the

same survey. This would suggest that satellite radio subscription is not the main cause of defection from conventional radio in this study.

Bridge Ratings (2006, 3-5) states that, in 2005, in the United States, "Internet radio and satellite radio made significant inroads in growth and acceptance stealing precious minutes of time-spent-listening from traditional radio". It attributes this change to two factors:

- the concentration of radio ownership allowed by the 1996 US Telecommunications Act led to rationalisations — such as managers overseeing multiple stations, corporation-wide planning, mass marketing, less research — which took radio away from its local roots;
- concerns for short-term results ("operating budgets and planning formerly based on twelve month performance, became quarterly and eventually, monthly concerns") focussed managers' attention on finances rather than the "creativity and human talent which were at least responsible for a portion of its tremendous growth"; coupled with the Internet bust of 2000, this fixation with ad revenues also meant that broadcasters focussed almost entirely on the 25-54 market, leaving the 12-24 segment to experiment with new sources of entertainment (primarily file sharing).

One the one hand, Bridge Ratings (2006, 9) states that "traditional radio itself has seen enough of a slip in use over recent studies to indicate a paradigm shift in the long-term service", but, on the other hand, it also informs that "use of traditional radio has moved from 1998's 95.3 percent of the U.S. population to 2005's 93.9%" — hardly a profound change although it is expected to drop to 89% by 2010. A more important shift transpires in the average weekly time spent listening to (unspecified type of) radio which went from 21.5 hours in 1998 for the average 12+ US radio listener to 19.5 in 2005 (Bridge Ratings, 2006, 11) — forecasted to drop to 18.25 by 2010.

Bridge Ratings (2006, 24 ff.) concludes that, faced with a more difficult environment, US conventional radio has already reacted:

- Clear Channel Radio has reduced commercial air time;
- new formats (Adult Hits) were introduced which have "actually begun to return some listening from listeners who had heretofore given up";

- the US radio industry has adopted high definition technology and has created new radio formats suited to it.

But, according to Bridge Ratings, more needs to be done:

- the radio industry must regain a "pre-consolidation mind-set" allowing "radio management the capability to respond locally to its audiences and to be proactive competitively and operationally";
- local station management must once again respond with creativity to local markets;
- capitalize on the radio "characterizing strength": its ability to be "truly live";
- open radio to user contributions;
- reduce intrusive and interruptive advertising and focus on thematic branding and sponsorship, coupled with scouting and identifying new talent which meets this branding;
- focus on "local" (news, music, events, people, products, issues) coupled with a 'global' access, for a winning combination;
- archive every show, interview or news item to create a social memory.

In brief...

According to these sources, the current market share of conventional radio has only slightly diminished in recent years in terms of penetration in the general population but the average TSL has dropped more markedly. Analysts associate this with limitations of the medium (air time to program various genres, advertising and sound quality) but conclude that conventional radio has not played its strengths to the maximum in recent years; these strengths are a local focus, a highly adaptable programming, interactivity with the listeners and possible technological change.

Chapter 4

CONSUMER PROFILES

This chapter focusses on the profiles of listeners of Internet radio and of satellite radio.

4.1 Internet use

According to *Internet Use in Canada* (2004):

- 64% of the 12 million Canadian households had at least one member who used the Internet regularly in 2003 (defined as using the Internet at least once a month).
- Internet use was highest at home with 55% of households having at least one member regularly using the Internet from home.
- The total amount of time members of Canadian households spent on the Internet in a typical month averaged 31 hours.
- 13% of Canadian households had at least one member who listened to radio (unqualified) on the Internet. This is the least frequent of the 17 activities measured by Statistics Canada; the second least frequent is chat groups (14%) and the most frequent, e-mail (52%).

Here Comes Online Radio (2004, 11) characterises listeners of Internet radio as follows: "Barely 10 percent of Internet users are listening to radio via the Internet. But this audience exhibits highly desirable characteristics. Listeners have a high loyalty to an individual station, and they tend to listen frequently. As upscale early adopters of technology, they are also avid consumers and very comfortable using the Internet for transactions." Moreover, about 40% of Internet radio listeners tune in five or more days a week (2004, 12); about half have been listening for less than one year (2004, 13).

According to *Canadian Film and Music Opinion Study* (2005, 68), Canadians aged 15 or more listen to 18.7 hours of music per week, on average. While this absolute value strikes us as exceedingly high for an average across the entire population, the relative proportions by source are interesting: 44% of that time is attributed to radio air time; 37% to CDs, cassettes and MP3s; 12% to television; and 8% to the Internet.

According to *Canada Online!* (2005):

- 72% of adult Canadians say they "personally use the Internet", mainly from home (61%) and work (35%).
- Internet use is highest in Alberta (76%), Ontario (75%), and British Columbia (74%) followed by the Prairies (69%), Québec (68%) and Atlantic Canada (67%).
- Incidence of Internet use exceeds 85% for Canadians aged 44 or less while it decreases to 76% among those aged 45-54, 63% among 55-64 and 31% among Canadians aged 65 or more
- Incidence of use of the Internet is higher among those who attended college or university (80%+) than among the others (less than 60%).
- It also increases with household income.
- Canadian Internet users spend on average 13 hours per week online.
- Use averages 18 hours/week among those aged 18-24, 13 to 14 among the 25-54 and 9 among the 55 or more.

According to *Internet and Multimedia 2005*:

- 81% of Americans aged 12 or more have access to the Internet (accounting for all access locations) (2005, 14).

- 8% of Americans aged 12 or more listened to Internet radio (simulcasting stations or webcasting-only stations) in the last week and 15% in the last month (2005, 19).
- The main reasons for listening to Internet radio are (2005, 20): to listen to audio unavailable elsewhere (17%), to choose the music played (15%), fewer commercials (14%) and more music variety (13%).
- Listening to Internet radio by Americans aged 12 or more is concentrated among well-known Internet radio brands (2005,21): AOL Radio Network, Yahoo! Music, MSN Radio, WindowsMedia.com and Live365 reach one quarter of Internet radio listeners.

According to Paragon Research (*Radio Still Strong Despite New Media's Growth*, 2005):

- 76% of US residents had heard of Internet radio (simulcasting and webcasting).
- 36% of US residents had heard of podcasting.
- 52% of US residents have listened to Internet radio at some point in the past.
- 67% of US Internet radio listeners indicated that they listen to less than 1 hour of it in a typical week; this translates into an average time spent listening (TSL) of 1.7 hour per week. Once multiplied by the proportion of US residents who answered the question (159/400), this means that 0.7 hour per week would be spent listening to Internet radio by the average American (simulcasting and webcasting).
- 21% of Internet radio listeners (simulcasting and webcasting) indicated that they now listen to less conventional radio versus 17% who listen more.

In brief...

It isn't easy to find threads concerning Internet radio listeners, using available information. It seems that listening to (unqualified) on-line radio stations is one of the most infrequent activities carried out by Internet users. Also the measurement of the intensity of use is highly volatile — ranging from an hour or so a week to more than ten. Finally, it is probable that Internet radio listeners are among early adopters of technology, who also tend to be wealthier and more educated than average.

4.2 Satellite radio

According to *Internet and Multimedia 2005*, awareness of XM and Sirius has reached 50% and 54% respectively among Americans aged 12 or more (2005, 25); one out of five Americans aged 12 or more say they are "very" or "somewhat" likely to subscribe to satellite radio in the next 12 months.

The Deutsche Bank (*XM Satellite Radio*, 2005, 7) documents that

> the average age of an XM subscriber is about 35, a figure which we believe has been relatively stable since launch. This suggests that satellite radio is not targeting the younger listeners who have already cut their terrestrial radio TSL more than older demos. [...] In music, XM is emphasizing its live event broadcasts, as a differentiator in particular from terrestrial radio. XM programmers believe that offering such music content that is not widely available from other sources helps to decrease subscriber churn, in particular among music enthusiasts. [...] XM subscribers currently listen for roughly 22 hours per week to an average of 4-5 channels. This TSL is greater than the slightly over 19 hours per week the average terrestrial listener uses radio.

The US satellite radio niche is as follows, according to *Audio Signals* (2005, 23): "1) 'mood-seekers' who flee commercial interruptions regardless of their content, 2) those who view music as important to their lifestyle [...], and 3) those seeking a greater volume of new music than commercial radio stations, with narrower play lists targeting a greater cume, can supply [...]." This description is entirely based on the amount of the music content (not its nature). Note that the US *Clear Channel* has experimented with a reduction of advertising time; *Broadcasting Spectrum* (2005, 1) indicates that "With a year of learning curve under its belt on its Less Is More inventory management initiative, Clear Channel radio is at last poised to gain share in 2006".

Audio Signals (2005, 24) also indicates that "satellite radio may benefit from terrestrial radio's declining role in promoting new music. Terrestrial radio's role in promoting music is substantial but has been declining, in our view, reflecting 1) shorter terrestrial radio play lists, which offer fewer slots

for airplay of new songs, 2) the cost to labels of independent promotion, and 3) the development of other promotional options for artists, including TV channels, films, commercials, Internet streaming and download services."

According to Paragon Research (*Radio Still Strong Despite New Media's Growth*, 2005):

- 82% of US residents had heard of satellite radio.
- 7% of US residents subscribed to satellite radio.
- 17% of US residents were at least somewhat likely to subscribe to satellite radio in the following 12 months.
- (based on a very small sample size of 25) 44% of satellite radio subscribers indicated that they now listen to less conventional radio versus 16% who listen more.

Mintel (2004, 17) segments the US satellite radio market into three groups: purchasers at retail (41% of new subscribers in 2004), factory car installations (56%) and rental car installations (3%).

In late 2003, three years after the launch of the initial satellite radio service in the US by XM, "satellite radio is still in the early stages of consumer adoption", according to Mintel (2004, 33). So much so that Mintel could not profile satellite radio subscribers using a survey of 2,000 Internet-connected Americans conducted in May 2004: there were too few of them. Mintel elected to create an "early lifecycle portable electronic product" (ELPEP) segment — made of individuals who reported subscribing to satellite radio or owning a camera cell phone, a phone used for wireless data, an internet-enabled pda, an MP3 player, a portable DVD player. While only 3% of survey respondents indicated owning a satellite radio, 30% owned one or the other of these portable electronic products (2004, 34) — this is the group that Mintel profiles, in a somewhat arbitrary fashion:

- the differences between male and female owners of ELPEPs are minimal, with a slight skew towards men;
- the most dominant consumers of ELPEPs are among 18-24 year olds but proportions of ownership is stable up to the 55+ age group;
- current ELPEP users have much higher income than average;

- ownership of ELPEP is more prevalent in larger households and in households with children.

In 2006, Omnitel profiled US satellite radio subscribers as follows:

- twice as likely to be male than female;
- young (in Omnitel's survey, penetration ranges from 19% in the 18-24 group to 2% in the 65+ group, with a steady down slope from age group to age group);
- wealthy (penetration is less than 9% up to $40,000, then increases to 23% in the $75,000+ group).

In brief...

Results on the satellite radio user profile are somewhat confusing: sometimes, there is no gender bias while, other times, men reign; sometimes, the consumer is middle-aged while, other times, it is young; sometimes, it is wealthy while, other times, it has average revenues. Moreover, some analysts prefer to profile satellite radio users according to music tastes rather than socio-demographics, or again, according to distribution channel. All in all, even though satellite radio is a paid-for service, it seems that suppliers and other analysts know relatively little about subscribers.

Chapter 5

IMPACT ON CONVENTIONAL RADIO

This chapter summarises findings related to the impact of Internet radio and satellite radio use on listening to conventional radio.

5.1 Internet radio

Canada Online! (2005, 70) indicates that

> Internet users not only spend a good deal of time online (more than 13 hours per week), they also spend almost as much time as non-users with other media (between 53 and 54 hours per week). Both users and non-users spend significant amounts of time watching television, listening to music, and listening to the radio. However, while non-users spend the largest portion of their media time watching television, users spend the largest portion of their media time on the Internet.

The following table extracted from Canada Online! is quite informative.

Exhibit 5.1
Time spent on media activities

Media activity (n=3014)	Internet users	Non-users of the Internet
Watching television	11.3	15.0
Reading books	7.1	6.7
Watching movies in the theatre	0.6	0.4
Watching movies at home on a VCR or DVD player	2.7	2.3
Playing video games not on the Internet	1.1	0.6
Listening to music on CD, cassette tape, or MP3 player	9.5	7.4
Reading newspapers or magazines	3.9	4.9
Listening to the radio	9.4	11.0
Talking on a cell phone	2.2	1.1
Talking on the telephone (excluding cell phone)	4.7	4.9
Spending time on the Internet	13.5	n/a
Total media use	66.0	54.3

Source: *Canada Online!*, page 70

It suggests that Internet usage is associated with 9.4 weekly hours of radio listening (the questionnaire did not specify whether that was to be limited to conventional radio) while non-users averaged 11 hours per week. The difference is 1.6 hours.

Some could construe this differences as a reduction of 15% [1.6/11] of radio listening if there was a causal relationship between Internet use and reduced radio listening. However, the study does not offer data to substantiate this causal relationship. It could be that Internet users were lighter listeners of radio to start with — after all, even though Internet users spend 100% more time talking on cell phones than non-Internet users (2.2 hours/week vs. 1.1), no one would suggest that Internet use causes an increase in cell phone use. Therefore, we do not agree with the initial portion of the study's conclusion but we could accept the final statement: "while Internet use has a measurable displacement effect — with some time that might have been spent watching television, listening to the radio or reading magazines and newspapers instead devoted to the Internet — our data support the general conclusion that, for most users,

the Internet serves more as a supplement to traditional media than a replacement" (*Canada Online!*, 2005,71).

Canada Online! also documents that 48% of Internet users rank radio (unqualified) as a very important or extremely important source of information to them compared to 43% of non-Internet users. This observation does not support the notion that Internet use distracts individuals from radio content.

A very similar conclusion can be drawn from the study's findings on radio as a source of entertainment: 43% of Internet users rank radio as a very important or extremely important source of entertainment compared to 38% of non-Internet users. Again, these data does not support the hypothesis of a detrimental impact of Internet use on radio use.

Although not related to impacts on radio, it is interesting to note that *Canada Online!* (2005, 78) reports that 77% of Internet users indicated that their use of Internet has resulted in no impact on the time they spend listening to their own music collection; 8% indicated that it increased; and 15% indicated that the time they spend listening to music decreased as a result of their use of the Internet. The report concludes "In any case, it seems clear that the Internet is not decreasing the appetite of Canadians for music listening, even if it is altering the way in which it is delivered."

Internet and Multimedia 2005 offers some interesting insights with regard to the American population aged 12 or more. For example, the report indicates that (2005, 26):

> Eighty-two percent say that they will continue to listen to terrestrial radio in the future as much as they do today despite technology advancements. Seven in 10 12- to 17-year-olds and 83% of 18- to 24-year-olds also agree that they will continue to listen to over-the-air radio as much as they do now despite technology progress.

The observation that "About two-thirds of Americans do not believe traditional radio will be replaced by satellite/Internet radio" (2005, 27) is of less value as it is based on the future as seen by relatively uninformed citizens. However, the following comparison again does not support the

view that new media have much impact on conventional radio listening (2005, 27):

> Those who use on-demand audio devices/services spend slightly less time listening to traditional radio compared to the average. The average consumer spends approximately 2 hours 48 minutes per day listening to traditional radio, compared with 2 hours 33 minutes per day among those who own iPods/portable MP3 devices, subscribe to satellite radio or listen to Internet radio during the past week.

Bridge Ratings (2006, 20) sees Internet radio (without differentiation for webcasting and simulcasting) as "the largest threat" to traditional radio in the US: "By the middle of 2006, 20 million persons [5.6% of the US population] will use the Internet weekly to stream music channels and listen to Internet radio. This translates into 70 million who will use these services at least once per month. By 2010 weekly use will surpass 68 million [21.3% of the US population]." Let's note again that such projections are based on methodologies which are left unexplained and un-assessed. Also, it is somewhat surprising to read that there is a 3.5:1 relationship between monthly use and weekly use; this suggests high variations of use week-to-week — whereas radio listening is documented as more regular and intense by other sources.

Here Comes Online Radio (2004, 22) summarises the relationship between conventional radio and Internet radio as follows:

> Internet radio may not erode broadcasters' bread-and-butter audience of drive-time listeners. But it certainly poses an excellent opportunity for the more aggressive, entrepreneurial ones to use the Internet to develop daytime loyalties and then steal share from drive time competitors. [...] The online-only stations have the upper hand. They're providing (relatively) commercial-free background music matched exactly to the listener's liking, with the added features of displaying "now playing" song information. [...] Since the barrier to entry is low, other local media with hightrafficked Web sites may find it fruitful to dabble with online radio. [...] Beyond the streaming-audio aspect, the Internet has handed terrestrial radio broadcasters an opportunity to get on a level playing field with their print competitors. They can use the Internet to give a broadcast campaign depth or detail.

In brief...

In total, there is remarkably little solid evidence of a significant impact of Internet radio on listening to conventional radio. Where differences are documented, they are either in the wrong direction to support an effect hypothesis (i.e., on-line radio listeners spend more time listening to conventional radio than others) or they are accompanied with parallel findings which suggest that exogenous factors may be at play (i.e., other factors which affect both listening to Internet radio and carrying out other activities and not the relationship between the two). If only one conclusion could be drawn, it would be that the Internet currently serves more as a supplement to traditional media than as a replacement.

5.2 Satellite radio

The Deutsche Bank (XM Satellite Radio, 2005, 13) indicates the following:

> In addition, we believe some survey data suggests that satellite radio is still a niche product (XM's subscriber base is still roughly 65% male) appealing primarily to higher-income consumers. That said, we believe that satellite radio could achieve its subscriber goals over an investable time horizon (e.g., through 2010) even while only penetrating less than 10% of current radio listeners.

The Bank, therefore, does not foresee an impact exceeding 10% of listeners of conventional radio through to 2010.

Audio Signals (2005, 27) lists the six factors which will affect the pace of adoption of satellite radio — neither one of which is related to music content:

> 1) increased consumer awareness (through direct advertising, distribution partners, and word of mouth) and trial, 2) distribution by OEM auto manufacturers, 3) development or acquisition of differentiated programming to meet the demand for better radio content (evidenced by among things Clear Channel's reduction in commercials under "Less Is More") and audio quality (evidenced by the roll-out of digital radio by the terrestrial broadcasters), 4) the attractiveness of additional features (portability, music recording, and music purchasing, for example), 5) further reduction in

> hardware costs, and 6) execution by the satellite services' managements.

The same publication (2005, 30) recognizes the very high level of uncertainty which characterises the US satellite radio market (even though it is a five-year old market, contrary to the Canadian market) and, therefore, concludes with a very wide bracket of possible adoption rates:

> In summary, we believe that the actual adoption rates thus far could be used to support a wide range of ultimate adoption scenarios. For example, satellite radio adoption to date could fit a case where market potential is 150 million subscribers, as well as one where market potential is only 25 million subscribers.

On the issue of the competition between US satellite radio and conventional radio, *Audio Signals* (2005, 45-46) provides the following insights:

> [...] satellite and terrestrial radio will co-exist. Terrestrial radio should continue to dominate in providing local news, weather and entertainment programming including sports, and likely continue to be supported largely by local advertising, which is 80% of its current revenue stream. Satellite poses greater threats to terrestrial radio in music programming and national advertising, in our view.
>
> An Edison Media study concluded that dissatisfaction with terrestrial FM music stations is a principal driver of satellite radio adoption. However, we believe that terrestrial broadcast radio may become more competitive in music programming, even without any technological improvements. First, we believe that the length of ad spots is likely to decline as Clear Channel in particular gears up its "Less Is More" initiative. We expect further research to provide better data concerning listener perceptions of spot loads. Second, we believe that broadcast radio could reduce listening erosion by improving the quality of ad spots, for example, by better tailoring spots to station formats and increasing the number of ads read by on-air hosts. Indeed, the last two Arbitron/Edison studies of spot loads in 2005 and 1999 found that listeners were equally bothered by the quality as quantity of radio commercials. Third, broadcast radio could increase daily time spent listening by developing more on-air talent for day parts other than morning drive. More generally, we expect increased competition for on-air radio talent, as terrestrial stations target the key morning and

> afternoon drive time day parts with locally-based, syndicated, or out-of-market voice-tracked programming.

In 2004, Mintel (2004, 16) wrote that "While the increase in satellite radio subscription sales has not yet caused a significant share loss for AM and FM broadcasters, the industry has shown signs that it is concerned about the long term impact of satellite radio."

eMarketer concludes as follows (2005,13):

> To keep pace with XM and Sirius Satellite Radio, commercial radio stations down on the ground are upgrading their sound quality, cutting commercials, expanding once-rigid play lists, introducing new formats, and revamping Webcasts. Many stations are also moving to digital broadcasting, which could provide as many as five signals where there is now only one. That means earthbound stations will also soon be introducing subscription services — but with local news and color that satellites will have difficulty matching.

Bridge Ratings (2006, 16) sees satellite radio as one beneficiary of reduced listening of conventional radio, "but it will certainly not be the major benefactor (sic)". The report does not indicate who the other beneficiaries might be as it bases its conclusion on the comparison of the expected market position of conventional radio with the expected position of satellite radio; in its analysis, the improvement of the latter does not equate the deterioration of the former.

In brief...

While there is no debate that satellite radio will encroach into the conventional radio listener market, the extent of that theft is unclear. With five years of market experience under their belt, American analysts suggests that the US market for satellite radio will be about 10% of listeners of conventional radio nine years after the initial XM offering. Yet, some financial analysts provide forecasts which vary, from minimum to maximum by a factor of six! The one area of consensus appears to be that the fate of conventional radio rests in large part on the ability of radio broadcasters to develop an inventive alternative to satellite radio — one that is based on local content and colour (music being one of the elements of the "colour").