# Summary of Public Radio Leadership Forum Technology Sessions

Monday, May 10, 2004
Sheraton National Hotel, Arlington, Virginia

## I.    Origins of the Technology Strategy Sessions

The 2004 Public Radio Leadership Forum (PRLF) organizers, recognizing the significant and rapidly changing technology environment in which public radio operates and competes, decided to devote the opening morning to the exploration of strategic issues surrounding this topic.

The organizers appointed a committee to produce the morning sessions.  It included Georgette Bronfman, Executive Director, EPR;[1] Mark Fuerst, Executive Director, IMA;[2] Luis Guardia, Senior Director, Media Technologies, CPB;[3] Chuck McConnell, PBMA;[4] Alisa Miller, Vice President of Corporate Strategy & Management, PRI;[5] Dana Rehm, Vice President, Member & Program Services, NPR;[6] and Tom Thomas, Co-CEO, SRG.[7]  This committee, in turn, selected a facilitator and the principal presenters below who also assisted in planning the sessions.

The organizers selected three technology topics of emerging importance:  satellite radio strategy, Internet strategy, and terrestrial digital radio ("HD Radio") strategy. Satellite radio was selected because the aggressive entries of Sirius and XM into the marketplace and their potential for carrying the most important public radio programming have made it controversial.  Like satellite radio, Internet audio also has strong disruptive potential.  Its low barriers to entry, expanded broadband take-up, and growing wireless delivery capabilities also have substantial importance to public radio's future.  HD Radio was selected because the radio broadcasting community seems to be accepting it at a significantly faster rate than previous radio technology enhancements[8] and because federal funding has become available for transmitter conversions to the new digital standard.

The committee invited Dennis L. Haarsager, General Manager, Northwest Public Radio,[9] to be the facilitator.  Five principal speakers were invited, each with nationally-recognized expertise in the tasks they were asked to perform for the

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[1] Eastern Public Radio, P.O. Box 615, Kensington, MD 20895.  www.easternpublicradio.org.
[2] See IMA footnote above for contact information.
[3] Corporation for Public Broadcasting, 401 Ninth Street, NW, Washington, DC  20004-2129. www.cpb.org.
[4] Public Broadcasting Management Association, P.O. Box 50008, Columbia, SC 29250. www.pbma.org.
[5] See PRI footnote above for contact information.
[6] See NPR footnote above for contact information.
[7] Station Resource Group, 6935 Laurel Ave. #202, Takoma Park, MD 20912.  www.srg.org.
[8] *E.g.*, AM stereo, FMX, RBDS.
[9] Associate Vice President & General Manager, Educational Telecommunications & Technology, Washington State University, Pullman, WA 99164-2530.  www.ett.wsu.edu, www.nwpr.org.  He is also the author of this report (see contact information on the last page).

PRLF.  Larry Rosin, President, Edison Media Research,[10] was invited to be the principal presenter on the satellite radio topic and to assist with questions on the Internet topic.  Jack Galmiche, Executive Vice President and Chief Operating Officer, Oregon Public Broadcasting,[11] and Stewart Vanderwilt, General Manager, KUT,[12] were invited to be the principal presenters on the Internet topic.  James Paluzzi, General Manager, Boise State Radio,[13] was invited to be the principal presenter on the HD Radio topic.  Additionally, the committee felt that there should be a closing keynote address to describe the environment in which these changes are happening. David B. Liroff, Vice President and Chief Technology Officer of WGBH,[14] was invited to fill that role.

## II.     Proceedings

### II-A.  Technology Overview

Haarsager welcomed the attendees and set a context for the technology strategy sessions.  He noted that technology is playing an increasingly important role in the lives of our stations.  Recent initiatives like the ongoing CPB metadata dictionary work,[15] Public Radio Exchange,[16] and the PRSS ContentDepot[17] are not only making our professional lives easier but are critical to sustaining our future.

The three other technology developments selected for these sessions appear poised to have a significant impact on our industry.  Two of these, satellite radio and the Internet, are classic "disruptive innovations," technologies that operate under very different economic circumstances than our legacy business and can bring similar services to new users – disrupting the status quo.[18]  HD Radio is, as currently authorized, a sustaining innovation – one designed to improve the legacy business. However, if the secondary audio services are approved, as public radio has advocated, it too could be a disruptive innovation – at least doubling the amount of programming a station could transmit.

He noted that disruptive innovations are unsettling.  They are threatening.  When confronted with them, companies often take a defensive posture to protect their legacy business.  In the long run, though, these defensive strategies often fail.  On the other hand, studies have shown that businesses that use disruptive innovations to

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[10] 6 W. Cliff St., Somerville, NJ 08876.  www.edisonresearch.com.
[11] 7140 SW Macadam Ave., Portland, OR 97219.  www.opb.org.
[12] University of Texas at Austin, 1 University Station A0704, Austin, Texas 78712.  www.kut.org.
[13] 1910 University Dr., Boise, ID 83725-1915.  radio.boisestate.edu.  To become Vice President for Applied Technology, Colorado Public Radio, Bridges Broadcast Center, 7409 S. Alton Ct., Centennial, CO 80112; www.cpr.org.
[14] 125 Western Ave., Boston, MA 02134.  www.wgbh.org.
[15] www.utah.edu/cpbmetadata.
[16] www.prx.org.
[17] www.prss.org.
[18] See Clayton M. Christensen, *The Innovator's Dilemma*, HarperBusiness Essentials, 1997-2003, and Clayton M. Christensen and Michael E. Raynor, *The Innovator's Solution*, Harvard Business School Press, 2003.

attract new customers or to bring new services to existing customers stand a better chance of long-term success.

He concluded, public radio faces at least three of these simultaneously.  If it is not a perfect storm, then it is at least a perfect opportunity to position ourselves for the new digital distribution modes that give listeners more control over their time and personal space.

## II-B.  Satellite Radio Strategy

II-B-1. Perspectives on Satellite Radio

Rosin led off the session with a comprehensive overview of satellite radio based on research performed by his company and implications for public radio.  See Attachment 1 for his PowerPoint slides.

He first described the current and projected future scope of satellite radio broadcasting by its two principal U.S. providers, XM Satellite Radio[19] and Sirius Satellite Radio.[20]  He noted that currently XM has some 1.7 million subscribers while Sirius has some 500,000.  The most optimistic growth projections place the subscriber count in 2010 for XM at 14.7 million and for Sirius at 9.9 million.

Edison's research shows that marketing drivers include distaste for commercial radio options, commercial-free music, a quality national signal, and obscure musical options.

Early adopters of satellite radio are heavily male 18-49, are above index for non-whites, are persons "into music," are early adopters generally, spend well over the average amount of daily time in a car, and are frequent "entertainment subscription hobbyists" – indexing very high for satellite television, magazines, "NFL Sunday Ticket," etc.  These early adopters almost entirely abandon FM *music* radio, they love the product (for reasons in the previous paragraph), do still use AM and FM for unique *non-music* programming (sports, news and personalities), and they are likely to be "evangelists" for the product.

He observed that both companies are "wildly" unprofitable.  They carry enormous debt loads, will have a tough time raising prices significantly, and remarked that some analysts believe they will likely become one company sooner or later.

Their research shows that persons who sample public radio are less likely to be interested in satellite radio than radio listeners in general.  Some 62% of the public radio cume is "not at all" interested in satellite radio, compared to 48% of all radio listeners.  Public radio listeners trailed all radio listeners in the "very," "somewhat," and "not very" interested responses.  Compared to those interested in or already

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[19] 1500 Eckington Place, NE, Washington, DC 20002.  www.xmradio.com.
[20] 1221 Avenue of the Americas, New York, NY 10020.  www.sirius.com.

subscribing to satellite radio, public radio listeners are much older, consume much less music, are more likely to be white, and are much less likely to own other new technologies (MP3, GPS, DVD). On the other hand, public radio listeners are even heavier drivers (the mean is more than 330 miles per week), have higher average incomes, and are similarly dissatisfied with commercial radio – all of which tend to be found among satellite radio subscribers.

XM is familiar to only 32% of the public radio cume and 32% of radio listeners in general. Sirius is familiar to only 28% of the public radio cume and 24% of radio listeners in general.

Rosin then asked the attendees to consider if this new audio distribution channel was a friend or a threat. Satellite radio could be a "friend" in that it can offer public radio programming everywhere and in that it provides a new channel for programmers like NPR and PRI. It could be a "threat" if it steals listening from local radio, if it allows access to NPR/PRI programming without listening to stations that pay for that programming, or, more definitely, since it offers music formats most common on public radio stations.

He also asked public radio interests to consider that getting satellite radio does not mean a listener has unplugged his or her AM/FM radio; that having the best content is still the best way to garner listening, regardless of the distribution channel; and that public radio stations are *far* more prepared to compete with satellite radio than is commercial radio since public radio has essentially been following the same model as they offer for years (again, see the third paragraph in this section). Further, public radio should consider that channels on Sirius and XM can be locked (adult channels already are). Public radio programming could be made available, for example, as an incentive to satellite radio subscribers who have donated over some threshold to a local public radio station.

In summary, Rosin noted that it is nearly inconceivable that satellite radio users can grow to anything close to the kind of numbers that cable television has. There is also very little likelihood that anyone will start producing the kinds of programming for satellite radio that public radio provides. However, the mere existence of more choices means that behaviors will change – and the fight for the "ears" of consumers will be that much more difficult. Finally, while distribution networks like satellite radio are issues, public radio *must* consider the impact of on-demand programming and file sharing. Satellite radio is still a passive medium – it is just more channels of radio. The future is likely far more oriented towards on-demand.

II-B-2. NPR/PRI Comments

Rosin's presentation was followed by brief comments on satellite radio from NPR, PRI and four station executives. Alisa Miller, Senior Vice President of Corporate

Strategy & Management at PRI[21] and Ken Stern, Executive Vice President at NPR[22] led off with the positions of their organizations.

Miller said that the major goal of PRI's satellite radio strategy is to provide a strong presence for public radio programming on this emerging platform. If the satellite platform is ultimately successful, it is important that public radio audio be represented. She said that PRI asks three key questions that align its priorities: (1) How can this support PRI's mission to serve audiences with distinctive programming that provides information, insights, and cultural experiences essential to understanding a diverse, interdependent world? (2) How can we meaningfully include stations in this strategy? and (3) How can our efforts support talent development for our industry?

Miller remarked that, based on these priorities, PRI has formed a not-for-profit partnership with stations, specifically WBEZ (Chicago) and WGBH (Boston) called American Public Radio, LLC to pursue this strategy. PRI manages three satellite radio channels on Sirius: *PRI's Public Radio World*, *BBC World Service*, and *BBC Mundo*. In the future, PRI plans to continue to experiment with more programming and scheduling by providing new and extended life to specials and independent programs, counter-programming by bringing weekend programming throughout the week, and testing new programs not widely available on terrestrial radio.

Stern observed that satellite radio is here to stay. He reminded attendees of a remark at the 2000 Public Radio Conference by Alan Webber, founder of the magazine, *Fast Company*: "You are no longer in charge. Your listeners are." That is to say, if we did not provide the content to our listeners in the manner and time of their choosing, they would find others willing to do so.

He noted that, over the next six months, NPR Research will conduct a quantitative analysis of how listeners have responded to our satellite radio strategies. Are subscribers listening to the programs we have provided? Does the absence of the news magazines drive them back to terrestrial radio? Are they searching for other news providers on satellite radio because we are not providing the news magazines? NPR's immediate strategy is to use this research to try to understand this dynamic.

II-B-3. Station Comments

Station executives Dave Edwards, General Manager, WUWM;[23] Jennifer Ferro, Assistant General Manager, KCRW;[24] Eric Nuzum, Director of Programming & Operations, WKSU;[25] and Jon Schwartz, General Manager, Wyoming Public Radio[26]

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[21] Public Radio International, 100 N. Sixth St., Suite 900A, Minneapolis, MN 55403. www.pri.org.
[22] National Public Radio, 635 Massachusetts Ave., Washington, DC 20001. www.npr.org.
[23] Milwaukee Public Radio, PO Box 413, Milwaukee, WI 53201
[24] 1900 Pico Blvd., Santa Monica, Ca. 90405. www.kcrw.org.
[25] 1613 East Summit St., Kent, Ohio 44242. www.wksu.org.
[26] University of Wyoming, Dept: 3984, 1000 E. University, Laramie, WY 82071. uwadmnweb.uwyo.edu/WPR.

were selected by the organizers because of their earlier articulate expression of contrasting views about the advisability of distributing public radio's well-known national programming via satellite.

Ferro led off the station comments by noting NPR and member stations are at a crossroads because it is now possible for NPR to distribute its own programming independent of the stations. If stations allow NPR to distribute its two major programs, *Morning Edition* and *All Things Considered*, independently, it could significantly reduce the importance of the local station to its audience. Satellite radio is targeting the public radio listener by bringing similar, and in many cases, the same programming to subscribers, directly competing with what we do over the air. Even its annual subscription fee is similar to what we ask listeners to voluntarily provide.

Stations depend on the NPR news magazines to sustain their local programs. These homegrown products, with their smaller audiences, are the programs that differentiate one public station from another. They capture the flavor of the local community, but need the audience pull of the "tent poles" to help sustain the station and its local service.

A public radio listener who spends time turned to satellite radio is spending less time with a public station. AQH and TSL will suffer. Both these numbers affect subscription income and underwriting revenue. All listener-sensitive revenue is affected. If the financial viability of stations is threatened by the broadcast of the NPR news magazines on satellite radio, NPR's budget is also in trouble. NPR will lose station income.

Edwards noted the difficulties for public broadcasters in understanding the challenges ahead from new technologies. Ten years of experience with the Internet has given us the opportunity to further interact with our listeners, but it has not come even close to the earlier predictions of replacing us or at least of the way we behave as broadcasters. Stations are devoting few resources to that medium.

*Morning Edition* and *All Things Considered* remain the primary audience builders, unique in their level of program popularity. Although stations develop relationships with listeners that go beyond those core programs, it is not likely that many of us would survive if the core program franchise were no longer available to us.

He said that we should not ignore emerging technologies, but rather take advantage of these opportunities to bring new listeners to our local stations (giving a number of examples). "Public radio should prepare streams at all sorts of target audiences: business audiences, lovers of opera ... maybe lovers of hip-hop." Further, whatever the stream, we can repurpose segments from the news magazines for inclusion. Lastly, he advocated licensing existing programming for downloading to an MP3 player. Downloads could be made available for a fee or as a premium to members.

Schwartz spoke about localization of national programming to satellite radio subscribers – providing a limited number of minutes per hour to member stations

for local news, weather, traffic and underwriting credits. He reminded attendees that public radio was the second largest broadcast group, one of the largest revenue aggregators of all broadcast groups in the country, and the most credible source of news and information in America. The ability to integrate local and national programming (especially *Morning Edition*) creates the most powerful morning radio news show available.

He said that satellite radio is growing faster than any new technology introduction other than DVD players.[27] Additionally, satellite radio invades the car, where radio time spent listening (TSL) has been insulated from other new media competition. "TSL is 'life,'" so threats to it must be attended to, tracked and responded to. Stations are left behind as national-scale media and non-real time media (e.g., MP3, DVDs) erode radio's TSL.

Schwartz stated that localization preserves the local/national cooperation that has created public radio's powerful programming; brings stations politically and financially into the future with the national networks; brings the powerful integration, continuity and connections of multiple perspectives, multiple channels, and likely multiple audiences; creates potential expansion of local capacity to handle the diversity of emerging channels and audiences; and provides for the multiplication of underwriting availabilities locally.

Finally, he noted that both stations and NPR should adopt the strategic goal of pursuing localization opportunities, make the political case for localization with the FCC and Congress, and develop strategies that complement the local/national partnership. He noted the irony of Congress requiring localization in the case of television (cable must carry), yet banning it in radio (satellite radio).

Nuzum asked attendees, "Should *Morning Edition* and *All Things Considered* be available to listeners in Tulsa, Oklahoma or Albuquerque, New Mexico?" He noted that restricting these programs from Sirius is tantamount to turning off these two programs in a market the size of these two cities.

He said that it is time to start thinking of Sirius subscribers – a subscriber base equivalent to the 64th market in the U.S. – as an opportunity, a market of potential customers similar to geographic markets. Instead of thinking of satellite radio as a separate medium, it makes sense to think of Sirius's listeners as a market, similar to Tulsa, Albuquerque, or any other cluster of individuals.

At the point at which the Sirius subscriber base reaches 750,000, it could (assuming a 3% market share) attract a weekly cume of 22,000. When Sirius and XM combined have a combined subscriber base of 4.5 million,[28] it would have a projected cume of

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[27] Measured by time to achieve one million subscribers.
[28] He projected a Sirius subscriber base of 750,000 and combined Sirius/XM subscriber base of 4.5 million by the end of 2004. That would involve a 50% increase for Sirius and 165% increase for XM over the current numbers Rosin presented. The "most optimistic" projection contained in one of Rosin's slides (see Attachment 1) was 700,000 for Sirius and 2.3 million for XM at the end of 2004.

135,000, making it the 70th largest cume in public radio, bigger than more than 89% of public radio stations in the country.

He noted that the "big buzz" in public radio for some time has been "new audience." There will be more potential with satellite radio expansion than with any other single initiative to create new listeners. The key to making this work is the glue of our programming offerings – the hubs that anchor much of our other programming: *Morning Edition* and *All Things Considered.* Listening to public radio's current satellite channels without them is less of a satisfying experience than it is a constant reminder that these two programs are not there.

## II-C. Internet Strategy

The second session covered use of the Internet by stations and listeners. Jack Galmiche's and Stewart Vanderwilt's joint presentation, "A Critical Analysis of Online Opportunities and Strategies," was drawn primarily from and summarized a number of presentations from the 2004 Integrated Media Association[29] Conference in April.[30] See Attachment 2 for their PowerPoint slides.

Vanderwilt reported on recent relevant research. He noted that traditional services like television and radio continue to dominate and are expected to continue that prominent role. However, at the end of 2003, broadband penetration reached 20% of American households and is expected to double over the next five years. Self-reported time spent online now rivals television (ten hours vs. twelve hours for the latter) and is double the time spent (five hours on the average) listening to the radio.[31] Asked to choose whether to give up radio or give up the Internet, 48% of respondents (and 50% of public radio respondents) said they would give up radio.[32]

He believes that as broadband connectivity grows, including the emergence of wireless broadband, choosing between them will become less and less of a "Sophie's choice." High speed connections increase online use and spur use of audio and video. Advertisers are moving more ad dollars to online. Companies are beginning to develop more entertainment applications. Within public broadcasting, we are seeing new revenue from corporate support (banners, section sponsorships, newsletter sponsorships).

For online, mid-day is prime time. Online is the dominant mid-day medium in offices.[33] News is a primary driver. Content providers are starting to daypart their news offerings, with hard news in the morning and softer and entertainment

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[29] Integrated Media Association, P.O. Box 810, Rhinebeck, NY 12572. www.integratedmedia.org.
[30] These presentations were by David Card, Jupiter Research Analysis; Michael Vorhaus of work done by Frank A. Magid Associates for the Online Publishers Association; Bruce Koon, analysis of Knight Ridder; Claude Galipeau, analysis of CBC.ca; and Larry Rosin (see footnote above) of radio/Internet research conducted by Edison Media Research and Arbitron, Inc.
[31] Jupiter Research Analysis.
[32] Edison Media Research.
[33] Online Publishers Association.

information in the afternoon.  Station web statistics are reporting similar usage patterns, peaking in mid-day with an up tick in the evening.

Media sites are becoming "destinations."  People are developing daily use habits, with many reporting they "rely on the site."  Web sites complement and extend offline services, with little evidence of "cannibalization."  Sites offer complementary value – with the online side providing new functionality.  Some 72% of visitors to media sites bookmarked the site and 12% use it as a homepage.  Online extensions of offline media offer functional advantages – speed and ease of use.  Legacy offline media provide more satisfaction and enjoyment.  Respondents with high-speed access are consistently more in favor of online.  Online and offline components are comparable in terms of trust and reliability.[34]

Galmiche discussed two models to consider, CBC.ca and Knight Ridder Digital (KR Digital).  The former is a central "single URL" destination site that has become the most widely used general news site in Canada, with a monthly cumulative audience of 9.7% of the total population.[35]  The latter is a distributed service model involving 31 local newspapers.

He reported that CBC.ca operates with a "Put the user first" rule. [36]  They focus on the basics:  production standards, usability, navigation, and core content.  They reflect public broadcaster values online – addressing the viewer or listener as a citizen, not as a consumer.  CBC.ca extends the CBC brand and service to new platforms.  It "completes the day" for the CBC audience, content delivered into the workplace when broadcast usage is low.  It connects with a younger audience than CBC broadcast outlets (18-34 year olds are 10% of the CBC radio audience but 32% of its online audience).  It supports high-impact programming and leaves a legacy archive online.  In unaided surveys, 80% of CBC.ca visitors say they go to the site for news and that is confirmed with page view analysis.

Knight Ridder is a local media company that is increasingly utilizing national strategies to drive local results.  It has papers in four of the top ten DMAs and eight in the top 20 DMAs and has 28 local newspaper sites and two national specialty sites[37].  Their newspapers offer the deepest local newsgathering team in the local market, intense local market knowledge, widely-respected columnists, and strong local brands.  KR Digital offers deep understanding of online audience needs, experience in online programming and design, a common publishing platform, and it creates efficiencies.  KR Digital's national news team includes seven producers in four of their markets staffed 5 x 14 on weekdays and 2 x 10 on weekends.  These are organized into three desks:  news-sports, entertainment, and presentation.  Their local sites focus on local breaking news and updates.

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[34] *Ibid.*
[35] ComScore Media Metrix, at home, January 2004.
[36] Based on Galipeau presentation at the 2004 IMA Conference.
[37] ThatsRacin.com and SiliconValley.com.

As with CBC.ca, most KR Digital traffic comes during work hours on work days. Usage interests change by time of day. Morning at work seeks usage of news pages. Afternoon at work sees more usage of entertainment. Evening at home sees usage of classified advertising.

Galmiche and Vanderwilt then challenged the attendees. Web service, especially as a medium for news, is the largest, most fully researched public service opportunity to emerge since the advent of cable television.[38] Web service within public radio remains frozen in an early stage of development. The range of acceptable options appears to be circumscribed by the same forces that prevented public television from seizing the last "new media" opportunity – cable.

We need to transition to a world of user choice, from a station centered world (centrally-programmed, limited choice, linear, through intermediaries, "Top 40," "what we offer, when we offer it") to a user centered world (self-programmed, almost unlimited choice, on-demand, direct to end-user, "iPod," "what I want, when I want it, how I want it).

Who are we trying to serve?: broadband users at work, people seeking news with depth and balance, people seeking quality noncommercial music, and a slightly younger audience. What content and service?: news from local to international delivered in a way that complements and extends on-air programming and prepared on a common publishing and storage platform, substantially improved search, program and schedule information, local connections and events, and audio on demand with expanded audio options. What has to happen? Combine national (brand-name shows and personalities, national and international news and analysis, ability to aggregate audience, economies of scale) and local (reporters in every community, unique local shows and personalities, capacity for local partnerships, local financial sources) assets for the benefit of our listeners.

See Section IV below for their recommended "next steps."

## II-D.  HD Radio Strategy

Paluzzi began the presentation on HD Radio[39] – part tutorial, part demonstration – by reviewing what is underway on the national level. The FCC has issued a Further Notice of Proposed Rulemaking relating to the use of supplementary audio channels within the digital standard. CPB has awarded two rounds of funding for a total of 118 digital transmitters. CPB is also sponsoring a technical study of public radio AM stations to assist those licensees in engineering and costing work. Additionally, CPB

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[38] See Mark Fuerst, "Can We Do Better This Time?", Current, April 22, 2004. This paper is available on the IMA web site at www.integratedmedia.org/julia/conf_docs/CopyforIMAConf042204.pdf.
[39] HD Radio is the marketing name for the U.S. terrestrial digital radio standard adopted by iBiquity Digital Corporation. iBiquity was formed in 2000 by a merger of USA Digital Radio and Lucent Digital Radio. Its headquarters is at 8865 Stanford Boulevard, Suite 202, Columbia, MD 21045. www.ibiquity.com.

will be conducting further work this summer relating to business models and sustainability and to supplemental audio.

He reported on the coverage study for digital supplementary audio channel ("Tomorrow Radio") conducted by Hammett & Edison[40] and displayed coverage plots of WETA-HD at 700 watts, WNYC-HD at 57 watts, and KPCC-HD at six watts of power.[41]  Testing was important because, unlike the main digital channel, the supplementary channel is not protected from fading by blending to the analog channel.  Overall, the testing produced quite positive results within the 60 dBu analog contours of the stations tested.

He noted that supplemental audio contains a unique set of legal issues.  From an FCC point of view, is it a station with its own public file and record-keeping requirements or it the equivalent of an SCA channel?  How will music licensing agencies and wire services treat these channels?  For programming these channels, he suggested that there is no need to rush.  Stations should develop multiple scenarios.  Programming needs to be localized and sustainable.

Paluzzi concluded with a demonstration of both supplementary audio and program-associated data that could be distributed over the HD Radio standard if approved by the FCC.  See also Section IV below for his recommended "next steps."

## II-E.  Technology Sessions Keynote Address

Liroff provided the keynote address to close the technology strategy sessions.  See Attachment 3 for a transcript of his remarks.

He opened by saying that, as technology changes and the circumstances of listening change, "our lives as professional public service broadcasters need to change if we want to have continuing consequence and significance."  Around this theme, he talked about the new competitive environment, for which "we need to get into fighting trim," about markets as "conversations," and about why we need to better understand "the jobs our listeners are hiring us to do."

Fighting trim.  He asked attendees to imagine a competitive situation where there were no barriers to entry and where the same national program components were available everywhere on the radio dial – however, the only differentiating elements were local – local hosts, personalities, "storytellers," news and features, an associated web site with differentiated content, off-air customer relationships with listeners which include personalized and customized emails, promotion, image, branding, events at the station, the role of the station in the community, etc.

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[40] NPR has the Hammett & Edison field test document, *2003 Field Testing of Tomorrow Radio Report*, available online at www.npr.org/euonline/pub/iboc/npr_tr_report_040106.pdf.
[41] The Hammet & Edison tests included WETA and WNYC above and also KKJZ in the Los Angeles Market from KKJZ and KALW in the  San Francisco market .

Within public radio, program wholesalers and retailers will be competitively delivering programs directly to listeners. He argued that in this more competitive environment, we should use the very powerful tools that we have – understanding of listener behavior – to increase listener loyalty. But while we're good at knowledge about program selection and placement, we don't know what the underlying motivators are and we don't know what elements of localism are worth the investment.

The "everything ubiquitously available" environment changes the rules of the game. We need a deeper understanding of the relationship with the listener at the retail level.

Broadcast radio is in a strong position. It is ubiquitous and inexpensive for listeners to access. But we should not take it for granted. For example, public radio and television lose users during on-air fundraising. There is a "tipping point" at which the short-term financial benefits are outweighed by the long-term damage, especially in an environment where alternative sources of programming are available.

Markets as conversations. Liroff noted that we are rapidly moving beyond the one-way mass communications model to one in which there is increasing interaction between the audience and the communicators – and among members of the audience as well. About this, he read the following quotes from the book, *The Cluetrain Manifesto:*"[42]

> "These markets are conversations. Their members communicate in language that is natural, open, honest, direct, funny, and often shocking. Whether explaining or complaining, joking or serious, the human voice is unmistakably genuine. It can't be faked.
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> "Most corporations, on the other hand, only know how to talk in the soothing, humorless monotone of the mission statement, marketing brochure, and your-call-is-important-to-us busy signal. Same old tone, same old lies. No wonder networked markets have no respect for companies unable or unwilling to speak as they do …
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> "Corporate firewalls have kept smart employees in, and smart markets out. It's going to cause real pain to tear those walls down. But the result will be a new kind of conversation. And it will be the most exciting conversation business has ever engaged in."

He then presented two examples, one from public radio and one from commercial radio, which move their stations in the conversational direction. WBUR's *The Connection* program wherein the host, Dick Gordon, sends out a weekly newsletter that is written like a letter from home rather than the standard corporate newsletter.

Understanding what we're being hired to do. Liroff noted that public television is only now in the middle of a major audience research initiative – long after public radio's *Audience 88* and *Audience 98* efforts.

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[42] Christopher Locke, Rick Levine, Doc Searles and David Weinberger, *The Cluetrain Manifesto: The End of Business as Usual*," Perseus Books Group, 2001 (paperback edition). www.cluetrain.com.

After reviewing focus group tapes, it became clear to him that the answer to the question, "What do viewers expect from us?" is, in part, "it depends." He found a useful description of this process in the book, *The Innovator's Solution*.[43] The authors assert that "predictable marketing requires an understanding" that customers have "jobs" that arise regularly that need to get done, and "they look around for a product or service that they can 'hire' to get the job done."

> "... Companies that target their products at the <u>circumstances</u> in which customers find themselves, rather than at the customers themselves, are those that can launch predictably successful products. Put another way, the critical unit of analysis is the <u>circumstance</u> and not the <u>customer</u>."

Finally, he noted that we need to pay attention to the individual stories. The fact that we reach tens of millions of viewers and listeners each week should not be allowed to obscure the fact that ultimately we're trying to reach audiences one at a time.

## III.    What Did We Learn?

Attendees learned from all the presenters that public radio is impacted by a broad array of technology changes underway – more than just the satellite radio, Internet, and HD Radio developments that were the focus of these sessions. The effect of these developments is predominantly, but not exclusively, disruptive in nature; that is, their adoption can disrupt or displace listening from our legacy medium. HD Radio has the potential to be both a disruptive (multiplying the choices listeners have) and a sustaining (improving services already offered) technology.

We also learned from Rosin, Galmiche and Vanderwilt that our legacy medium is currently dominant and is likely to remain in a strong position for some time. From Rosin, we learned that even the "most optimistic projections" for combined satellite radio subscriptions by 2010 are about 21% of U.S. households.[44] Of course, that's not to say it will have no effect, and the four station representatives differed on its impact. Some believe it will be a threat, others that it will be an opportunity.

We learned that sheer numbers of users of these disruptive technologies alone are not sufficient to predict their impact on public radio. Rosin pointed out that factors like our news format may be contra-indicative to use of satellite radio by public radio listeners and that public radio listeners were more likely to be "not at all" or "not very" interested in satellite radio than the general public (76% vs. 62%).

However, we also learned that some radio stations fear that extending our main news magazines to satellite radio listeners will give satellite programmers just what they are missing now to be competitive. Not surprisingly, as with virtually every other issue of importance, stations have varying opinions about how one should approach satellite radio strategy.

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[43] Christensen and Raynor, *op. cit.*
[44] 24.6 million out of 115 million households projected by the U.S. Census in 2010.

Galmiche, Liroff, Schwartz and Vanderwilt all underscored the importance of localization and differentiation, regardless of medium, as a strategy for public radio broadcasters. Ferro also gave a strong defense of local services. Rosin reminded us that "having the best content is still the best way to garner listening."

From Galmiche and Vanderwilt, attendees got a comprehensive overview of recent research relating to online strategies and opportunities. Broadband usage is climbing rapidly and at the end of 2003 was used in one in five homes. Online hours now rival television viewing hours and are double radio listening hours. Nearly equal numbers of people in a hypothetically forced choice would give up radio as give up Internet access. Online's primetime is mid-day, filling radio and television gaps. We also learned that successful models like CBC.ca and Knight Ridder's KR Digital have service and aggregation of scale characteristics that public radio can emulate (see "Next Steps" below).

Galmiche, Liroff, Stern and Vanderwilt reminded us that we are increasingly in a world where it is listeners are in charge of the circumstances of their use of our media. And finally, from Liroff, we learned that, as technology changes and the circumstances of listening change, we also need to change if we want to have continuing consequence and significance. He urged attendees to "get into fighting trim" for the new competitive environment, introduced the concept of markets as "conversations," and talked of the need to better understand "the jobs our listeners are hiring us to do."

## IV.     Next Steps

Regarding satellite radio strategies, station opinion ranged from reserving the main news magazines for exclusive local station use (Ferro), to develop technology and regulatory strategies to localize satellite radio (Schwartz), to do not deny the sizable number of satellite listeners our cornerstone programs (Nuzum). Edwards suggested using the new technologies to bring new listeners to our local stations and use repurposed material from the main news magazines within these streams. Stern described research underway that will shed light on some of the tough questions.

Galmiche and Vanderwilt presented an outline of a system strategy: As with CBC.ca, identify actual needs and behaviors in putting the user first, focus on the basics, identify and offer content that can attract daily use and build personal importance; and, to that, develop appropriate revenue streams to approach self-financed sustainability. As with KR Digital, create a common publishing platform designed for the end-user, aggregate content, and maximize economies of scale. But also build a foundation for sustaining revenues, develop web metrics to guide activity and investment, and use NPR PRSS as a corporate model.

Paluzzi urged AM licensees to participate in the CPB technical ascertainment project underway and urged all licensees to apply for CPB funding. He also noted the critical need to "think metadata," that is, understand that digital distribution requires professional asset management systems driven by the collection and use of

metadata.  With multiple distribution platforms using both real- and non-real-time access quickly developing, public broadcasters will need to employ digital asset management techniques utilizing a common metadata standard.[45]

Comments of the Facilitator/Coordinator.

Public broadcasting general managers have only rare opportunities to learn about and discuss technology strategy.  Our engineers have public broadcasting engineering conferences, which are poorly attended by CEOs, as well as the NAB conference.  The IMA has a relevant and effective meeting in this regard but, again, few CEOs choose to attend.  When large-scale conferences address technology, it is often relegated to concurrent sessions.  We have what amounts to a "trickle up" approach to bringing these issues to decision makers.

Arguably, technology is too important to leave to the technologists.  CEOs would never pay so little attention to development or programming.  That is what made this morning of the PRLF so unusual.  The attendees got an excellent overview of the critical technology issues, complexities and challenges ahead.

There are other major technology issues that need CEO attention.  Paluzzi mentioned the need for metadata collection and management in his presentation.  A system-wide effort to produce a metadata dictionary is well underway but still has no firm commitment for carrying this important work forward, much less a universal understanding of the needs and technologies involved.  Related to it is how we generate and feed the program-associated data capabilities of HD Radio (and for RBDS over our legacy transmitters).  Digital rights management is a huge issue toward which very little attention has been placed in public broadcasting.  It has far-reaching implications for how we do business in the future and needs early work.

In the past, improvements in technology have largely about making it possible to do our legacy business with greater quality or less expensively.  Now, technology is dramatically lowering the barriers of competition and giving our listeners control over their time and choices – disruptive technologies, as they have become known.  Public radio will do well to embrace these, to design and implement what are for us unusual organizations with unusual business models to extend our ability to carry out our mission on new platforms.  Our mission is much more resilient than our legacy mode of delivery.  Someone will be doing our mission in the future.

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[45] CPB has supported development of PBCore, the Public Broadcasting Metadata Dictionary.  A news release and appropriate links can be found at technology360.typepad.com/technology360/asset_management/.