Chapter 4
The Evolution of Cross-Platform Media Use in the United States: Insights from Consumer Research and NBC Universal's "Olympic Research Lab"

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Introduction

During the last decade, there have been profound changes in media use patterns, not only in the United States, but in many countries around the globe. To a large extent, these changes are a result of new media technologies that have increased consumers' options with regard to content as well as origin. As a result, traditional as well as new media companies are facing difficult decisions as established business models are being challenged and new business models have to be created.

A very difficult challenge was faced by NBC Universal (NBCU), a worldwide media company headquartered in New York, in connection with their investment as the exclusive carrier of Olympic video in the United States. NBCU had been very successful covering the Olympics in the United States for more than a decade. The Games had consistently achieved high ratings and sponsorship revenues made them profitable despite the high license fees paid by the network. During the 1990s and the early part of this decade, "Olympic coverage" meant, of course, *television* coverage. However, with the growing use of the Internet, the network had to decide if the 2008 Beijing Summer Olympics should be covered differently than prior Olympics. Additionally, in light of changing consumer preferences, NBCU was in need of data that would help prepare coverage strategy for Vancouver (February 2010) and London (August 2012).

Research at NBCU, as at other media companies in the United States, had been tracking regularly Americans' media consumption habits as well as Olympic viewing specifically, and was able to apply the learning from that research to the Beijing coverage strategy (Coffey, 1997; Stipp, 2003). The 2008 Olympics promised a unique opportunity to gain much deeper insights because of the unprecedented expected size of the Olympic audience – not only on TV but also on the web and on mobile phones. NBCU invested in an extensive research program, dubbed "Olympic Research Lab.". The "lab" was commissioned to combine various

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research methodologies that provided new insights into media behavior in the United States in 2008 and also revealed emerging usage patterns that are likely to evolve during the next years and impact how the audience would want to experience Olympic coverage in the future.

Americans' Media Use 2007–2008

As NBCU was preparing coverage of the Beijing Games, Americans were acquiring new media technologies at a fast pace. This was true of both Internet technologies, such as broadband, and technologies that enhance viewing of TV content, such as High Definition TV (HD) and Digital Video Recorders (DVRs, also referred to as "TiVos"). On the other hand, despite the strong growth, the majority of US consumers did not own many of these technologies. In fact, many technologies were in less than 40% of all homes, indicating they were still not mainstream products (Fig. 4.1).

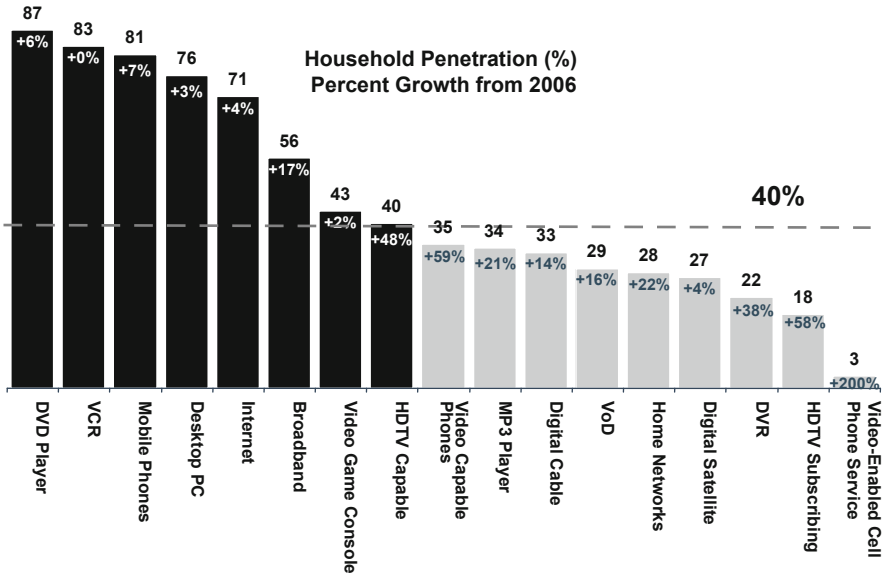

Fig. 4.1 Media technology ownership and growth 2007

Behavioral data, primarily from NBCU custom studies and Nielsen ratings data, showed that these technologies were changing media use. Those changes could be most easily observed among young people, but it appeared that they were spreading among older age groups as well. The most significant changes were the growth of time spent on the Internet, the emergence of internet video as a result of growing broadband adoption and speed, time-shifting through DVRs, and adoption of flat-screen TVs and HD. Portable media (video on cell phones) did not yet play a

significant role. At the same time, all data agreed that there was no evidence "traditional" television was being replaced by new forms of consuming content nor was it being replaced by user-generated content which was referred to frequently due to the emergence and growth of YouTube. In sum, the data clearly showed that consumers' media use was evolving, but there was no indication of a "revolution," in the sense of a replacement of one medium through another.

Of all these changes, broadband video and the Internet were deemed most important for the Olympics coverage. First, the increase in viewing television content on a computer, facilitated through broadband, could increase the viewing audience, but it also had the potential to be disruptive, since the traditional advertising-based television business model relied on large audiences watching programs on television, especially during Primetime. Revenue from online advertising in connection with streamed shows was small in comparison to TV. Therefore, it was important that online video would not cannibalize the TV audience. Research had shown that cannibalization was unlikely. NBC had started to make shows available online the day after they aired on TV in 2006. Figure 4.2 provides an example of one popular prime time program, "Heroes," that was offered on several platforms and shows the relative amount of usage of those platforms. The data indicate that although there was a substantial amount of online viewing, television remained by far the preferred viewing platform for Heroes.

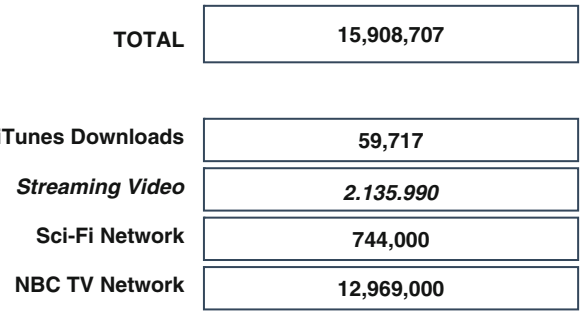

Fig. 4.2 Online viewing of full TV episodes (*heroes*)

Another trend in media behavior that was likely to have an impact on the Games was the adoption of High Definition TV. As the analog TV system in the United States (NTSC) has a much lower resolution than PAL and SECAM (which are used outside of the United States), the difference in picture quality between "regular" TV and HD is much starker in the United States than many other countries. The difference is evident to most viewers on TV sets as small as 25 inches. This had led to a faster adoption of HD in America, compared to Europe, for example. With regard to Beijing, this trend seemed to have upside potential: HD was found likely to enhance the TV experience and could help draw large numbers of viewers to the television set.

Time-shifting through DVRs was considered less important for the Beijing coverage. While some popular TV series were being time-shifted through DVRs by over a quarter of viewers, ratings analyses had shown that sports events were watched

overwhelmingly "live" by DVR owners. Mobile content and video, however, were considered of interest despite their comparatively low usage levels at the time, for two reasons: First, there were already millions of smart phones with video capability on the market. It was likely that the number of users of mobile video would increase by the time the Olympics would be aired and maybe even during the Games, especially among young adults, an important target group for many advertisers. Second, based on the available research, it was safe to assume that mobile consumption of content would be relevant for future Games.

Coverage of Beijing Summer Olympics

Based on these data, as well as on technical and on business considerations, a plan for the coverage of the Beijing Games was devised. The plan tried to maximize audience reach and satisfaction by making an unprecedented amount of Olympic events available on three screens (TV, PC, and mobile) and show most in High Definition on television.

Apart from some soccer matches prior to the Opening Ceremonies, coverage of the Beijing Olympics started on August 8, 2008 and ended August 24, 2008. (Non-video online content was, of course, available on NBCOlympics.com prior to and after the Games.) Events were aired on NBC Universal's TV networks (NBC, USA, Oxygen, CNBC, MSNBC, Universal HD, and Telemundo). TV coverage over this time added up to about 1,200 h. In addition, NBCOlympics.com offered more than 3,500 h of online video (2,200 h of which were streamed live), as well as in-depth athlete profiles, photos, and games. Finally, NBCOlympics2Go provided mobile coverage with live streams, highlights, and, to subscribers, "breaking news" and "alerts."

Compared to prior Olympics, this coverage represented a significant increase in TV coverage, an expansion of HD production, and a tremendous increase in online and mobile content, especially video. The coverage strategy promoted cross-platform usage. Despite all these changes, one thing remained the same: an emphasis on the Primetime TV coverage on NBC, consisting of the most popular events (live when possible, but often recorded and edited), the opening and closing ceremonies, and features about athletes and the host country. During Primetime, no competing live coverage was made available on other networks or other platforms.

The coverage of the Games turned out to be very successful: NBC reported that the Beijing Olympics was the most viewed event in America's television history, reaching 214 million viewers. In addition, 52 million visited the website, looked at over one billion pages and streamed a total of 10 million hours of video. Finally, 6.5 million used the mobile offerings (50% of users accessed video for the first time). While all this contributed to the bottomline, the high ratings for Primetime were the most important factor in making this a profitable event for NBC Universal.

Many factors, including Michael Phelps' extraordinary performance, played an important role in the high viewership numbers. The learnings from NBCU's

"Olympic Research Lab" showed that the multi-media coverage strategy contributed a great deal to the success as well.

The "Olympic Research Lab"

Major television events in the United States (such as the Academy Awards, the SuperBowl, and the Olympics) are typically accompanied by research on the event's audience reach (using Nielsen data) and on the impact of advertising (through proprietary custom research or syndicated studies). Often, there is also special research on audience satisfaction. NBC Universal decided to develop a much larger research program in connection with the Beijing Olympics because, as said, the Games were seen as a unique opportunity to gain new insights into Americans' media behavior and emerging trends.

NBCU's "Olympic Research Lab" used the following methods:

- Standard TV (Nielsen), Online, Mobile, and VOD metrics
- A so-called "Olympics TAMi"(Total Audience Measurement index) that aggregated metrics on the reach of Olympics content on the various platforms
- Nationally representative multi-platform studies of over 8,000 adults to measure usage in all locations
- Surveys of over 2,000 viewers to assess attitudes about coverage and Olympics
- Electronic measurement of cross-platform usage
- In-depth focus groups
- Site intercept surveys on nbcolympics.com and surveys of users of NBCU's mobile offerings
- Sponsorship/Advertiser ROI (Return On Investment) surveys (such as pre–post exposure studies)
- Data from IAG, a syndicated service providing ad recall and impact data
- Cross-media campaign effectiveness studies (online intercept surveys conducted by Dynamic Logic and Insight Express).

As this listing shows, there was an extra effort to measure and understand multi/cross-platform media use and satisfaction with the offerings on the various platforms. The results of this research effort were deemed very valuable because they did provide the new insights the company was looking for – learning about media behavior that would reveal patterns likely to evolve during the next years and impact how the audiences consume and experience media content, including Olympic coverage, in coming years.

Lessons from the Research Lab

The findings from the Research Lab can be summarized in ten points that provide insights on how this event was consumed, but also provide valuable lessons regarding the on-going changes in media consumption. These points are the following:

1. *TV is (Still) King*: Despite the focus within the media business on the growing popularity of online video it is sometimes overlooked that television is still the most widely used medium by far. The research on the Olympics confirmed that statistic: As shown in Figs. 4.3 and 4.4, over 90% of the Olympics video coverage was consumed on television. Moreover, majorities within all age groups watched coverage *only* on television.
2. *HD Boosts TV's Appeal*: The research clearly supported the assumption that HD would enhance the TV experience and help make the TV set the preferred way of watching content – especially sports events – for many consumers. NBCU's surveys found that 35% of viewers watched Beijing coverage in HD and of those, 93% agreed "watching the Olympics in HDTV adds to my enjoyment." Qualitative studies helped gain more insight into this phenomenon indicating

	Mon 8/18	Tue 8/19	Wed 8/20	Thu 8/21	Fri 8/22
TAMi*	94,425,728	95,524,960	91,217,593	87,711,354	79,858,575
TV VOD (uniques)	116,725	110,908	106,532	87,565	74,639
Mobile (WAP uniques and Mobile VOD uniques)	424,842	399,229	426,067	447,297	420,812
Online (uniques)	7,421,161	7,406,823	6,225,994	6,726,492	6,070,124
Television (P2+ reach)	86,463,000	87,608,000	84,459,000	80,450,000	73,293,000

	Sat 8/23	Sun 8/24
TAMi*	80,324,906	91,094,643
TV VOD (uniques)	74,531	89,444
Mobile (WAP uniques and Mobile VOD uniques)	417,481	430,614
Online (uniques)	4,249,894	4,684,585
Television (P2+ reach)	75,583,000	85,890,000

"TAMi"= Total Audience Measurement Index, NBCU's method of adding metrics for all platforms.
TAMi does not takeoverlap between platform audiences into account, that is, the total does not necessarily represent different individuals

Fig. 4.3 Total exposure to Olympics (during week 1)

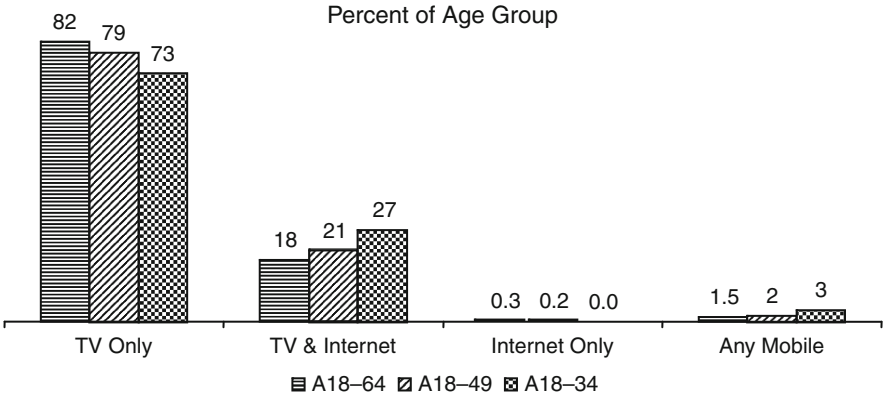

Fig. 4.4 Olympics platform use by age

that the nature of the event – frequently live sports, spectacle (opening ceremonies) and the viewers' high involvement – made the Olympics a "made for HD" event. The data also suggested that HD is similarly important for viewing other events of this kind, the SuperBowl, for example, and visually compelling movies, but relatively less important for many other kinds of content, such as newscasts.

3. *Most Consumers Use and Expect Multi-platform Access*: Television's dominance during the Beijing Olympics in terms of reach and time spent does not mean that other platforms were not important: Online use was four times larger than during the Torino Games only 2 years earlier (winter 2006) and mobile Olympic video was consumed for the first time.

   In addition to the metrics summarized earlier and the data shown in Figs. 4.3 and 4.4, the Research Lab provided valuable insights in the *how* and *why* of multi-platform media use.[1]

   - An innovative, single-source mobile electronic measurement of cross-platform usage revealed details of usage patterns, including use of mobile devices in the home while the TV was also tuned to the Olympics and changes in media usage. It appears that platforms are being chosen depending on life circumstances, such as being at home vs. being at work (Fig. 4.5).
   - Surveys revealed that consumers, irrespective of their own usage pattern during the Beijing Games, expressed a strong desire and an expectation that events such as the Olympics would be covered on all screens, not just TV (Fig. 4.6).

4. *Digital Content can Enhance and Increase TV Viewing and Consumer Satisfaction*: NBC research found that the availability of multi-media coverage can *increase, rather than decrease*, TV viewing time and satisfaction with the coverage and the event overall.

   Past research had shown that the multi-media coverage particularly appeals to fans of a content genre – which is not surprising. As Fig. 4.7 shows, this research indicated that constant availability of TV scheduling information, additional content, and video increased not only satisfaction, but also viewing time. This was a critical finding, since, as mentioned, there was concern that online video might cannibalize the TV audience.

5. *Consumers Love to Control Their Content Experiences*: The various studies confirmed that American consumers are increasingly getting used to – and enjoying – controlling their content experiences. This was evident during the Olympics even though there was less DVR time-shifting compared to other content (such as Primetime TV series). The research also suggests that even the choice to time-shift and manipulate the viewing experience with new technologies can be seen as an expression of control and choice by consumers. At the same time, interest in controlling content should not be interpreted as a desire to interact with or create content. To most consumers, it's primarily about choosing the content they want, on the platform they prefer, at the time they choose.

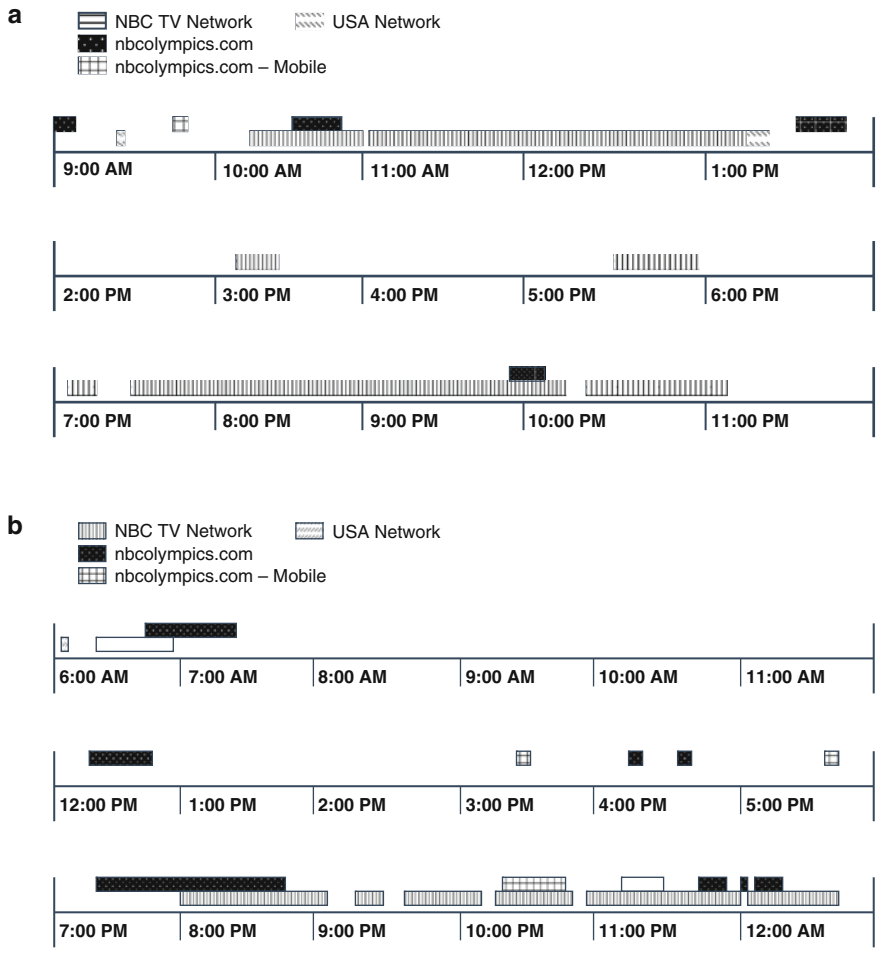

Fig. 4.5 (**a**) A day in the Olympic media life: *Miami female, 23 years old – Sunday 8/10/08*. (**b**) A day in the Olympic media life: *Miami female, 23 years old – Monday 8/11/08*

That choice can be being a "couch potato," i.e. choosing just to "lean back" and enjoy viewing with no interaction at all, but, more and more, this "traditional" viewing behavior is only one of the many facets of most consumers' media use repertoire.

6. *The Internet has a Strong Informational Function*: As shown in Fig. 4.8, online video use has exploded since 2006. As a result, focus tends to be on the video and less on the strong informational function of these websites. This was very evident during the Games too: There was a huge amount of video usage, almost 34 million views of video highlights and 14 million views of live events.[2] But most online usage was of non-video data – from TV schedules to athlete profiles to information on how sports performances are rated by judges. Again, the

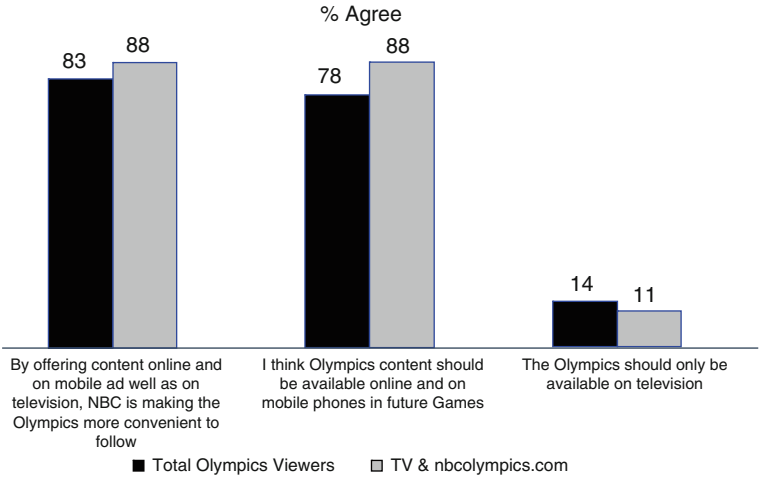

Fig. 4.6 Consumer expectations of multi-platform content

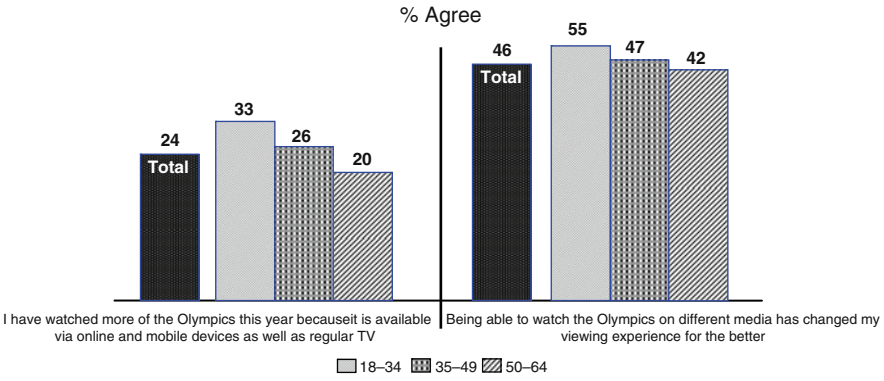

Fig. 4.7 Impact of multi-platform use on Olympic viewing

implication is that the internet and television offer compliment each other by offering different benefits and that one is not a replacement for the other.

7. *Online Content has to be Tailored to Audience Interests and Expectations*: The growth in new media technology penetration and the changes in consumers' use of those technologies does not mean that consumers adopt technology indiscriminately. In fact, since there is more competition for consumers' media time now, they can be choosier than ever. This is true for all platforms, but has special implications for websites: They need to serve sophisticated web-mavens as well as those who are looking for simple, easy navigation. Thus, it is important to not only consider the audience's interest regarding content, but also their needs regarding the form in which the content is presented. The user experience is critical.

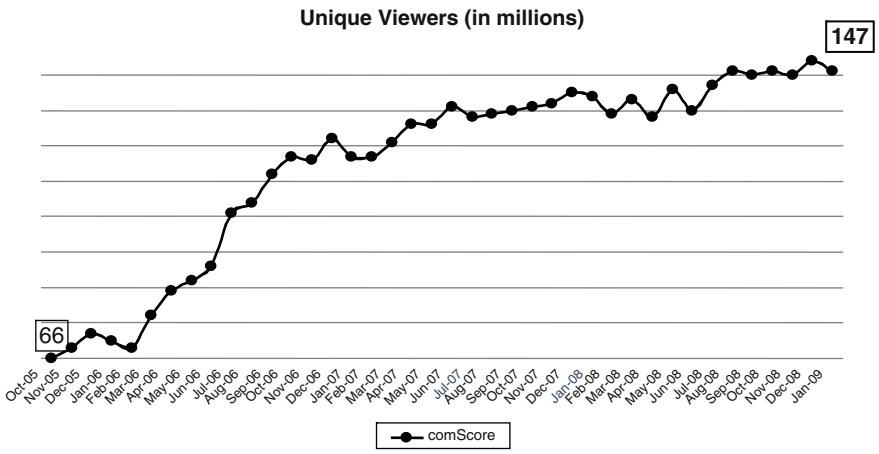

Fig. 4.8 Online video growth

8. *The Olympics are an Extraordinarily Powerful Advertising Platform*: In the United States, the Olympics are broadcast on commercial networks that depend on sponsor/advertiser revenues to provide coverage of the games. Over the years, it had frequently been demonstrated that the Olympics provide a superior advertising platform and that Olympic sponsorship is very effective (Stipp & Schiavone, 1996; Stipp, 1998). Figures 4.9 and 4.10 show that the evidence from the 2008 "Olympic Research Lab" confirmed that finding. For example, brand recall/lift was up over 100% for some participating brands.
9. *Multi-platform Advertising Works*: As the Beijing Olympics involved more multi-platform coverage, usage, and sponsorship than previous games, it was important to document the effectiveness of multi-platform sponsorship and advertising strategies. The data in Fig. 4.11 are an example of the many ways in which it was possible to demonstrate that multi-platform advertising increases the impact of Olympic sponsorship even further.

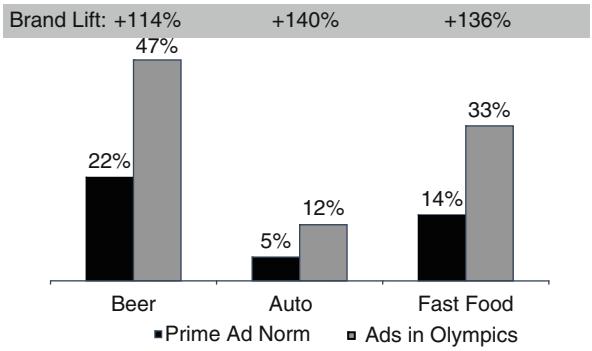

Fig. 4.9 Olympic ad effectiveness: Brand recall

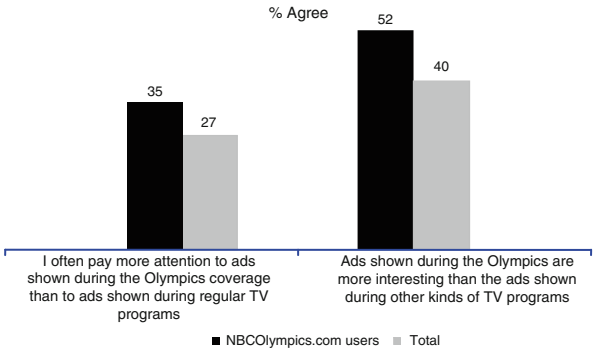

Fig. 4.10 Olympic ad effectiveness: Attention and engagement

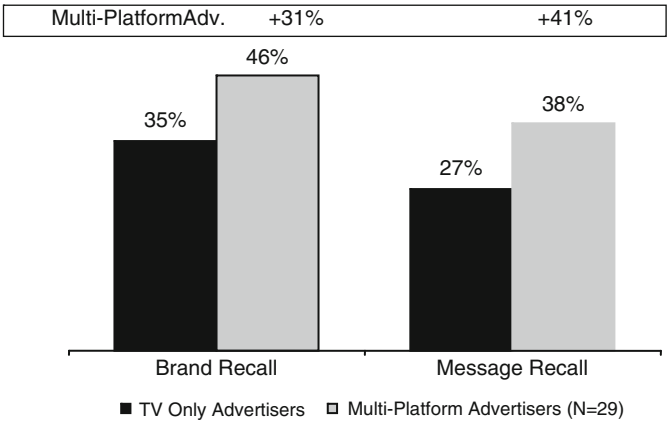

Fig. 4.11 Olympic ad effectiveness: Multi-platform impact

10. *New Methods Are Needed to Adequately Measure New Media Usage Patterns*: One of the unique features of the commercial media business is that the product being sold is the measurement: Media companies' revenue largely depends on measures that document exposure to advertising to be used as "currency" in negotiations with advertisers.

Traditionally, television networks in the United States, such as NBCU, used metrics provided by the Nielsen company that measure television exposure. As the internet emerged as an important player, web usage metrics and more recently, mobile usage metrics were created and offered by several companies in the United States. However, none of these measures is "single source," that is, obtains exposure to several media from the same individual, and there is no "currency" for multi-media exposure to content or advertising.

As described, during the Olympics, NBCU used a variety of metrics to create a substitute measure, called TAMi, to estimate the total reach of Olympic content on

all platforms. In addition, self-reported data was obtained from large surveys and a small panel of Olympic viewers was measured using a special cell phone method by iMMi, as described previously. The insights from the data confirm the need to create better measures, not only to track the evolving media usage behavior, but also to document unduplicated reach and frequency of contact with ads. This is essential to the development of multi-media sponsorship and advertising.

The Evolution of Media Use

In sum, the "Olympics Research Lab" provided new insights on Americans' media behavior – not just as a snapshot in time during the Beijing Olympics in August 2008, but also, in the context of on-going research into the changing media landscape and evolution of consumer behavior, as a basis for better forecasts regarding the pace and direction of change. While gathering insights for the coverage of future Olympics was a major goal of this research effort, its findings went far beyond that. For example, it became very clear that the use of the various media and platforms depends largely on the nature of the content, how it is presented, and how important it is to the consumer. Thus, even though there was no evidence of a dramatic, sudden "revolution" in media use but more of an evolutionary process, the Lab confirmed that constant research to track and understand changes in consumer media use and preferences is essential.

Notes

1. The study was conducted with iMMi, a company which distributed specially adapted cell phones to a sample of volunteers ($N = 39$ in six markets) who expressed interest in the Olympics and multi-media use. All data are based on measurements of usage, not self-reports. (A discussion of "single source" data can be found below under the heading "10 New Methods are needed . . . .")
2. Omniture 8/8-8/24-08; NBC Research.

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