

The Guest of the Future: In-Room Technology Preferences Today and Tomorrow

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Introduction

Travel back to January 2000. As the new millennium dawned in the hospitality industry, optimism was rampant in spite of the dot-com challenges – travel levels remained consistently high and the U.S. economy continued to be strong. Hoteliers everywhere were announcing their much-anticipated “next generation” strategic plans. Over the course of the next few years, hoteliers would race to keep up with technology, from automated wake-up calls to keyless-card entry to high-speed data ports.

Travelers were discovering technology too. Over five million Americans had embraced high-speed Internet connections at home.¹ High-tech gadgets like TiVos, portable media devices, scanners, and digital cameras were coveted.² Still, consumer spending remained relatively guarded, especially amongst the Baby Boomer generation – the majority of whom were in their 40’s then.³

Fast forward five years to today, the year 2005. Hoteliers have been dealt a number of challenges – from 9/11 to a struggling economy to fierce competition from niche and boutique hotels. It is fair to say that today the traveling public is more demanding than ever. Guests expect more than a comfortable night’s sleep – they expect an Internet connection, movies that start when they want, and an overall experience they can customize.

After 9/11, something else happened – many people stopped traveling, at least for a while. Instead, they started “cocooning” at home, spending more time inside their homes than

¹ Roger Park, “The Mainstreaming of Online Life,” *iMediaConnection*, Jan. 31, 2005, available at <http://www.imediaconnection.com/catchall/4989.asp>.

² Jack Poorman, “Top 10 High-Tech Holiday Gift Ideas,” *CNN.com*, Dec. 8, 2000, available at <http://archives.cnn.com/2000/TECH/computing/12/08/holiday.gift.guide/>.

³ Bruce Horowitz, “Strapped Americans trim gift spending,” *USA Today*, Nov. 20, 2002, available at <http://www.usatoday.com/news/acovthu.htm>.

outside of them.⁴ In 2002, one in five Americans spent more money than they had before on home entertainment. And adults with young children were even more likely (one in four) to spend more of their income on home entertainment.⁵ Homes became offices, too. The number of employed Americans working from home at least one day per month increased by nearly 40 percent.⁶

Technology sits at the core of these shifts in the lives of the hotelier and traveler – but not technology for technology’s sake. The Holy Grail from the perspective of both the traveler and the hotelier is technology that extends the experience that the traveler is now accustomed to at home – or in the office, in the dorm room, even at the airport – into the hotel room. It is fair to say that over the last five years, technology has done more to shape the future guest’s expectations and preferences than any loyalty program, room upgrade or 450 thread-count linen. There are many reasons to believe that technology will continue to drive the guest experience today, and tomorrow.

Now, fast forward five, or even ten years. What is the in-room technology that will deliver the “wow” that hoteliers strive to achieve? And which guests will care the most about it? This paper argues that hoteliers must understand their guests and their use of technology today in order to be successful tomorrow. Hoteliers who ignore the ingrained DNA-like behaviors and preferences of their guests when making decisions about in-room technology will experience huge investments without any great return. Guest loyalty – and the profits that follow – will not increase simply by installing and layering technology after technology in the guest room.

⁴ Rebecca Gardyn, “Family Matters,” Sep. 1, 2002, available at http://www.findarticles.com/p/articles/mi_m4021/is_2002_Sept_1/ai_90957494/print.

⁵ *Id.*

⁶ See [Youcanworkfromanywhere.com](http://www.youcanworkfromanywhere.com), Info Center: Facts and Figures (citing International Telework Association & Council), <http://www.youcanworkfromanywhere.com/infocenter/research.htm> (visited Jun. 14, 2005).

This paper offers a number of insights based on the analysis of hundreds of industry and newspaper articles, research studies, and interviews with knowledgeable industry players.

Sections I and II examine important population segments – those who travel today, those who will keep traveling tomorrow, and those who represent the dominant travel forces of tomorrow – to better understand who these groups are and what shapes their in-room technology expectations. *Section III* focuses on technology adoption, searching for clues in the history and growth of the use of select devices, and evaluates why certain technologies have been embraced over time. *Section IV* argues that content has driven technology adoption more than any price point or gadget ever has, or will, and points to three features – accessibility, mobility, and personalization – that may shape the demand for content and drive technology preferences. *Section V* analyzes the implications of these findings for guest loyalty. Finally, *Section VI* offers perspectives and advice for hoteliers considering future technologies for their guests.

I. Insight One: The Why We Travel Is Changing

After several years of struggle, the U.S. travel industry is starting to return to its pre-9/11 levels. Today, most metrics suggest a strong outlook for growth. The Travel Industry Association of America predicts that travel for both business and leisure will continue its upward trend in 2005, increasing by an estimated 3.6 percent for business travel and 2 percent for leisure travel.⁷ Occupancy rates are expected to grow to 69.4 percent overall (just shy of 2000's peak rate of 69.9 percent).⁸ The pipeline for new builds – an important indicator of the industry's confidence

⁷ See "2004 is the Year of Recovery the Travel Industry Has Been Waiting For; Some Sectors Finally Exceeding 2000 Levels," *Hotel-Online*, Oct. 29, 2004, available at http://www.hotel-online.com/News/PR2004_4th/Nov04_TIAOutlook.html.

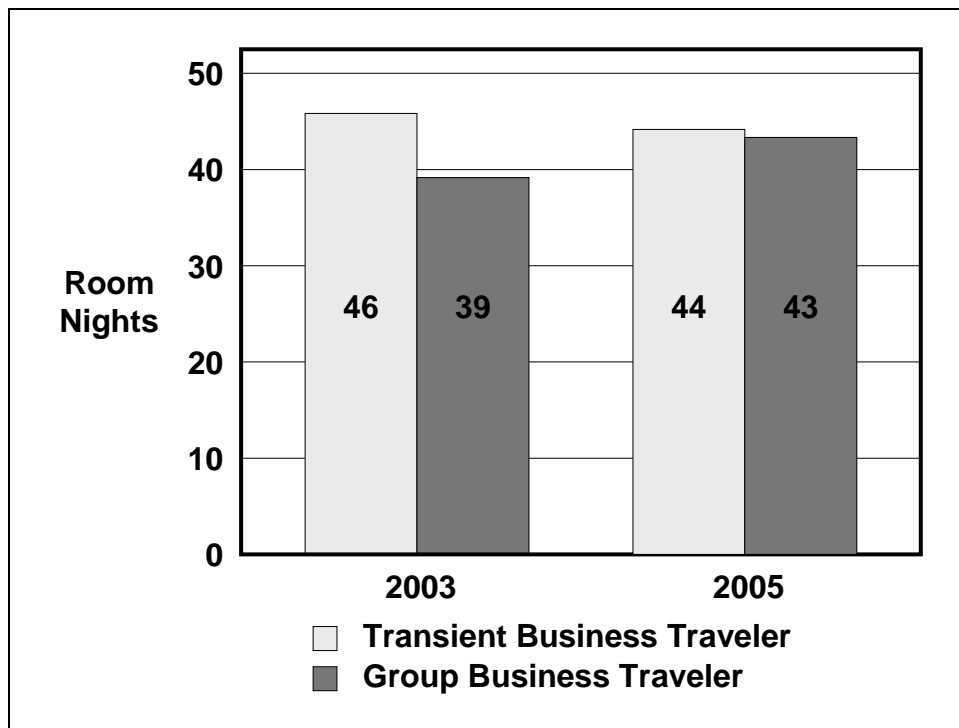
⁸ See "Hotel Occupancy Recovery Not Enjoyed by All," *Hotel-Online*, May 16, 2005, available at http://www.hotel-online.com/News/PR2005_2nd/May05_OccupancyPKF.html.

in future travel rates – also suggests a bullish future, projecting a 21.5 percent increase in 2005 – the largest since 1997 and the highest since 2000.⁹

A. Going Out of Business

The recent growth has been fueled by unexpected segments of the travel population. Robust growth is often attributed to increases in business travel – the source of substantial hospitality revenue. Although business travel remains strong, it is slowly being eclipsed by two rival segments: Group Business (i.e. business travelers attending conventions) and Leisure. While room-night stays have declined over the past few years for transient business travelers, they have remained steady for group business travelers.¹⁰

Figure 1. Average number of room nights in 2003 and 2005, by business segment.



Source: Douglas Shifflet, “So You Think It’s Back to Business As Usual?” presentation given at the AH&LA Summit, May 17, 2005 (citing DKSA Domestic Performance data, 2005).

⁹ 2006 is projected to increase again by 20 percent. (See “Number of room starts expected to increase 21.5 percent in 2005,” *Hotel & Motel Management*, May 27, 2005.)

¹⁰ Douglas Shifflet, “So You Think It’s Back to Business As Usual?” presentation at the AH&LA Summit, May 17, 2005, p. 11.

B. Take Time to Relax

In addition to the increases experienced by the group business segment, the leisure segment has also grown substantially. Leisure room-nights (including a large percentage of international travelers) have surpassed the business traveler and this trend is expected to increase over the next few years.¹¹ The Travel Industry Association of America (TIA) reported 1.9 and 2.9 percent increases in leisure travel volume for 2003 and 2004, respectively.¹² TIA has forecasted two percent growth for 2005 as well.¹³

A large part of the segment shifts can be attributed to the fact that many of the individuals that comprise the business travel segment are entering retirement. As the Baby Boomer generation has come of age, its members have shifted their focus to other travel segments such as Cruise, Timeshares, Bed & Breakfasts, and other retirement-oriented travel.¹⁴ On the heels of the Baby Boomers, the Generation X segment has also increased its demand for leisure travel.¹⁵

C. Will Laptops and Leisure Travel Together?

The shift in the composition of the travel population deserves serious consideration. When people travel for leisure or in groups, their travel decision-making is likely to reflect a different rationale. Hoteliers have always assumed that guests have changing travel needs, but in the future, it is the *reason* for their travel that will change.

This finding has broad implications for hoteliers' in-room technology decisions. In-room technologies that have appealed to business travelers in the past may not have the same appeal to leisure travelers. Consider, for example, Internet access in the guest room. In-room high-speed

¹¹ *Id.*, p. 30.

¹² "Travel Industry Optimistic For 2005," *HospitalityNet.org*, Nov. 2, 2004, available at <http://www.hospitalitynet.org/news/4021099.print>.

¹³ *Id.*

¹⁴ Douglas Shifflet, "So You Think It's Back to Business As Usual?" presentation at the AH&LA Summit, May 17, 2005, p. 39.

¹⁵ *Id.*, pp. 36-37.

data has become a required amenity to woo business travelers. While more and more leisure travelers are carrying laptops, the increase may not be enough to offset the decrease caused by there being fewer business travelers overall.¹⁶ Hoteliers might find that centrally-located kiosks that offer Internet access or guest rooms with PCs make for more attractive amenities. Such investments could fall flat, however, if technology access fees and charges, which did not seem to deter loyal business travelers, alienate leisure travelers.

Like leisure, the group business segment will also have different technology preferences from transient business travelers. Group business travelers – as their name implies – travel together. Travelers with companions are less likely to spend solitary time in their room and less likely to use the technologies provided there – such as movie rentals and video games. The decision maker may also be different – group business travelers usually have little say over their choice of hotel. Meeting planners may become a dominant force in determining what in-room experiences their group travelers have.

II. Insight Two: Every Generation Uses Technology Differently

Hoteliers can learn a lot about their guests long before they leave their house. Many insights regarding the future use of technology in the guest room can be drawn from a comprehensive understanding of how people are currently using technology in their homes and offices. Tomorrow's demand for in-room technologies is an extension of today's technology experiences and preferences. Over the next decade, three generations (Baby Boomers, Generation X, and Generation Y) will bring three very different sets of technology preferences

¹⁶ Henry H. Harteveldt et al, "Travelers' Mobile Device Ownership Will Spur Wi-Fi," Forrester Research, Apr. 29, 2004, available at <http://www.forrester.com/Research/Document/0,7211,34304,00.html>.

into the hotel. Together, these three generations comprise 60 percent of the U.S. population.¹⁷

Hoteliers making long-term technology decisions should study how these three generations interact with technology today – in their homes, at their offices, in their dorm rooms, at hot spots, in their cars, at airports – to anticipate what they will expect in the guest room tomorrow.

A. The Generation that Worked Hard, Will Play Hard

The largest of the three generations, the Baby Boomer generation accounts for almost one-third of the population with about 72 million members.¹⁸ Born between 1946 and 1964, most will enter retirement age in the next ten to twenty years. However, they will still make up a notable portion of the workforce. By 2010, over 15 percent of the workforce will be 55 and older; by 2015, almost one in five workers will be 55 or older.¹⁹ Currently in their peak years of their earnings, they have a propensity to spend money. And while they make up just over one-third of the population, they have over half the discretionary income and three-fourths of the financial assets.²⁰

Baby Boomers also travel considerably. In the past, this group has been responsible for a large portion of the increases in business travel.²¹ Ten years from now, this group may be responsible for the increases in leisure travel. Baby Boomers who can afford it are likely to

¹⁷ For more on the debate of the definition of the three generations, specifically birth-years and population, see “Generation Y,” at http://en.wikipedia.org/wiki/Generation_Y.

¹⁸ *Id.* and Paul Grondahl, “Older, wiser, richer,” *Timesunion.com*, Mar. 7, 2004, available at <http://timesunion.com/aspstories/storyprint.asp?StoryID=225206>.

¹⁹ William D. Novelli, “How Aging Boomers Will Impact American Business,” presentation at the Meeting of The Wisemen, The Harvard Club, New York, NY, Feb. 21, 2002.

²⁰ *Id.*

²¹ *Id.*

spend lavishly on luxury travel.²² Also, many members of the Baby Boomer generation have grandchildren and purchase children-oriented vacation packages like Disney cruises.²³

But while Baby Boomers may like their travel extravagant, they prefer their technology simple. This is due in large part because their technology needs are simple – driven less by entertainment and more by their desire to communicate with their family. They are the least technologically savvy of the three generations, but they are not intimidated by technology. Most members are computer-literate and comfortable using the Internet.²⁴ They prefer technologies that are easily-accessible and user-friendly and that are plug-and-play as opposed to those that require extensive installation or customization.²⁵ Over the next ten years, hoteliers should expect the elder community's comfort level with both PCs and the Internet to increase as those accustomed to using these technologies in their offices enter retirement.

The Baby Boomer generation exhibits an interesting pattern of technology adoption. Because Baby Boomers did not grow up with many of the technologies that have taken hold today, they take more care with technology purchases.²⁶ But Baby Boomers are not as slow to adopt as the generation before them. Data from two recent eMarketer surveys suggests that there is a distinction to be made between “older adults” aged 50 to 64 and “seniors” over 65.²⁷ In 2003, 28.6 percent of older adults were online compared to only 8.6 percent of seniors; by 2008, those

²² Kristin Davis, “Oldies but goodies; Marketers, take note: Baby boomers have lots of money to spend,” *U.S. News & World Report*, Mar. 14, 2005, available at <http://www.usnews.com/usnews/biztech/articles/050314/14boomer.htm>.

²³ *Id.*

²⁴ Bradley Johnson, “Marketing to American Luddites: Targeting Sweet Spots in an Ignored Demographic,” *American Demographics*, Mar. 7, 2005.

²⁵ See “Microsoft’s new campaign targets aging baby boomers,” *Associated Press*, Feb. 23, 2004, available at <http://www.aginghipsters.com/blog/archives/000263.php>.

²⁶ Debra Aho Williamson, “Here Come the Aging Boomers,” *iMediaConnection.com*, May 20, 2005, available at <http://www.imediaconnection.com/content/5883.asp>.

²⁷ *Id.*

numbers are forecast to increase to 40.7 and 13.2, respectively. Both segments show strong growth, but the gap between them is widening.²⁸

As defined above, the older adult and senior segments also have very different reasons for why they go online. According to the same set of eMarketer studies, older adults use the Internet mostly to access news and weather reports (79 percent), purchase products (71 percent), and obtain medical advice (68 percent).²⁹ Seniors, however, use these services barely half the time.³⁰

In addition to the Internet, Baby Boomers also value the television. They were the first generation to be brought up with the TV and still look to it as a primary form of entertainment.³¹ Their programming choices are varied and, like Internet adoption, differ depending on where they fall within the generation. For Boomers aged 45 to 54, the three leading television shows in 2003 were “CSI”, “The West Wing” and “ER”; for those aged 35 to 44, they were “ER”, “Friends” and “Survivor”.³² Older Boomers are more interested in news programs and less interested in reality shows, which still captivate younger Boomers.³³

The Baby Boomer generation is often overlooked or dismissed – but hoteliers should recognize the importance of this generation. During a time in which rapid change has led to a proliferation of technology options, Baby Boomers have not refused these advances. They have proven themselves open and adaptable to technologies such as the Internet and cable TV. While they may lack the savvy of younger generations, Baby Boomers are numerous, wealthy, and

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ Sandy Berger, “Classic TV,” *Compu-Kiss*, available at <http://www.compukiss.com/populartopics/entertainmenthtm/article575.htm>.

³² Pamela Paul, “Targeting Boomers - television may still be an effective way to market to Baby Boomers,” *American Demographics*, Mar. 1, 2003, available at http://findarticles.com/p/articles/mi_m4021/is_2_25/ai_97818969?cm_ven=YPI.

³³ *Id.*

about to enter a time in their lives where they are ready to reward themselves for years of hard work. Hoteliers will want to be ready when they arrive.

B. The X-alted Generation

Generation X (Gen X), born between 1960 and the late 1970s, accounts for approximately 40 to 45 million people in the United States.³⁴ They are the best-educated generation in history – 30 percent hold college degrees – and as a result are very focused and driven.³⁵ The average household income of this generation has increased dramatically in recent years and now stands at \$50,000 – almost on par with its predecessors, the Baby Boomers, at \$56,000.³⁶

Members of Gen X have a strong sense of independence and individuality. They gravitate towards whatever makes them feel hip and chic and allows them to express themselves. They are less driven by trends and more by what compliments them, their personality, and their lives – and what reinforces their individuality.³⁷ This is a generation that puts its sense of self before its sense of loyalty.³⁸

Generation X's spirit of individuality is reflected in its use of technology. Members of Gen X are tech-savvy entrepreneurs that grew up alongside many new technologies including the PC, World Wide Web, and mobile phone. They are computer literate professionals, many of

³⁴ For more on the debate of the definition of the three generations, specifically birth-years and population, see "Generation Y," at http://en.wikipedia.org/wiki/Generation_Y.

³⁵ Christopher Reynolds, "Gen X: The Unbeholden," *American Demographics*, May 1, 2004.

³⁶ See Alison Stein Wellner, "The new adults: the first Gen Xers will turn 38 this year," *Forecast*, Jan. 2003, available at http://www.findarticles.com/p/articles/mi_m0GDE/is_1_23/ai_96810279 and "Demographic Profile: American Baby Boomers," Metlife Mature Market Institute, 2003, available at <http://www.metlife.com/WPSAssets/19506845461045242298V1FBBoomer%20Profile%202003.pdf>.

³⁷ *Id.*

³⁸ See Gregory P. Smith, "Baby Boomer Versus Generation X Managing the New Workforce," *Businessknowhow.com*, Apr. 28, 2005, available at <http://www.businessknowhow.com/manage/genx.htm> (Gen Xers "are creative thinkers, independent, results oriented and bring with them a healthy dose of skepticism." and "They have a voracious appetite for technology and learning.")

whom have advanced computer-skills, and are comfortable with most forms of high-technology.³⁹

The spread of the Internet has helped to cultivate the individuality of this segment with its limitless opportunities to share, personalize, and create content. The hours spent watching TV as children has acclimated them to sitting at a PC for considerable lengths of time – both at home and in the office. The online universe has played a considerable role in their search for community and friendship.⁴⁰ Easy access and a seamless online experience are essential to this generation as the Internet has become a fundamental part of how they live, work, and play.

As consumers, members of Gen X are skeptical. Their comfort level with technology breeds confidence and makes them a fickle group of technology consumers. They have little tolerance for technology that lags, has a high rate of failure, or does not live up to expectations. And, thanks in part to the advent of Game Boy, they have an affinity for handhelds and other portable devices that allow them to carry their technology with them – and they tend to carry many of them.⁴¹

As travelers, members of Gen X prefer to cocoon – when they check into a hotel room, they tend not to emerge until morning. This is especially true when they travel for business – 71 percent of business travelers between the ages of 35 and 54 prefer to stay in their room than go out.⁴² They rarely use the traditional amenities offered at full-service hotels. Their most

³⁹ “Generation X takes charge,” *Star Tribune*, Jul. 23, 2004, available at

[http://www.highbeam.com/library/doc0.asp?docid=1G1:119678348&refid=ink_tptd_np&keyword=&teaser=.](http://www.highbeam.com/library/doc0.asp?docid=1G1:119678348&refid=ink_tptd_np&keyword=&teaser=)

⁴⁰ Edward Korenman, “Likes and Dislikes of the Elusive Gen-X,” *Consumer Electronic Vision*, Sep./Oct. 1998, available at http://www.ce.org/publications/vision/1998/sep/oct/pg06.asp?bc=dept&department_id=4.

⁴¹ *Id.*

⁴² See “Lodging Industry Profile,” American Hotel & Lodging Association, 2004, available at http://www.ahla.com/products_info_center_lip.asp.

commonly-used amenities include room service, in-room movies, and high-speed Internet.⁴³

They are also currently the most free-spending leisure travelers and are willing to pay more for a night in a hotel that fits their lifestyle.⁴⁴

Hoteliers have made little effort to conceal their desire to appeal to Generation X. However, despite their best attempts, they have struggled to establish a relationship with this generation – in large part because of its members’ strong sense of individuality.⁴⁵ Rob Frankel, author of *The Revenge of Brand X*, observes: “Gen X is called Gen X because they have no unifying cause.”⁴⁶ As Generation X ages and develops, hoteliers will not be able to cater to every one of their technology demands – simply because they will have too many and they will be too diverse. Instead, hoteliers can play to Gen X’s individuality by offering an environment that supports their desire to carry and connect their own devices. In the future, finding unique and different ways for guests to integrate their portable devices into their hotel room will become extremely important to the hotelier.

C. The Echo Boom Generation

Born between 1977 and 1993, Generation Y (Gen Y) has also been coined the Echo Boom Generation because most of its members are the children of Baby Boomers.⁴⁷ As a result, its population – 60 million – rivals that of the Boomers.⁴⁸ In almost every other way, they are very different. The forty years separating these generations has seen the nature of family change. Now, three in four members of Generation Y have working mothers and one in four lives in a

⁴³ Hoffichter et al, “Generation X and Their Future Buying Behaviors In the Foodservice Industry,” *Journal of Restaurant & Foodservice Marketing*, Vol. 3, Nos. 3-4, 1999, pp. 93-107, available at http://www.personal.psu.edu/users/v/j/vjw100/research_generationx.html.

⁴⁴ Shannon McMahon, “Going the X-tra mile,” *The San Diego Union-Tribune*, Apr. 24, 2005.

⁴⁵ Barbara De Lollis, “Hotels loosen their ties for a younger crowd,” *USA Today*, Apr. 24, 2005.

⁴⁶ Ron Frankel, *The Revenge of Brand X* (2000).

⁴⁷ For more on the debate of the definition of the three generations, specifically birth-years and population, see “Generation Y,” at http://en.wikipedia.org/wiki/Generation_Y.

⁴⁸ *Id.*

single-parent household.⁴⁹ Many of them shoulder considerable financial responsibility as part of their single-parent family upbringings.

Generation Y is remarkably practical and mature. Unlike preceding generations, Generation Y has grown up in an environment where families are more open about financial obligations and hectic work schedules. Their matter-of-fact views make them an important influencer in family decisions on just about everything. According to a recent Harris Interactive survey, members of Gen Y drive decisions about family cars, vacations, technology, and groceries.⁵⁰

While members of Gen Y exert a lot of influence on their parents, their peers exert a lot of influence on them. When making decisions about products and services, price and features are important, but recommendations from peers trump both. According to John Burnett, professor of marketing at University of Denver's Daniels College of Business, "Gen Y relies on peer recommendations to drive their buying choices."⁵¹ Still their parents finance most of their purchases, making them a financially attractive generation. Collectively, they represent \$211 billion in annual income – 87 percent of which comes from their parents – and \$172 billion in annual spending.⁵²

⁴⁹ "Generation Y: Today's teens--the biggest bulge since the boomers--may force marketers to toss their old tricks," *BusinessWeek*, Feb. 15, 1999, available at http://www.businessweek.com/1999/99_07/b3616001.htm.

⁵⁰ "Generation Y Earns \$211 Billion and Spends \$172 Billion Annually," *Harris Interactive*, Press Release, Sep. 3, 2003, available at <http://www.harrisinteractive.com/news/allnewsbydate.asp?NewsID=667>.

⁵¹ Joanna L. Krotz, "Tough customers: how to reach Gen Y," *Microsoft Research*, 2005, available at http://www.microsoft.com/smallbusiness/issues/marketing/market_research/tough_customers_how_to_reach_gen_y.msp.

⁵² "Generation Y Earns \$211 Billion and Spends \$172 Billion Annually," *Harris Interactive*, Press Release, Sep. 3, 2003, available at <http://www.harrisinteractive.com/news/allnewsbydate.asp?NewsID=667>.

Generation Y, not surprisingly, is the most digitally sophisticated of the three generations. Nine out of 10 teens have a home computer and 50 percent have Internet access.⁵³ More than half of teens aged 12 to 17 (about 12 million) own a mobile phone – and a quarter of all 18 to 24 year olds have Web-enabled phones.⁵⁴ 63 percent of cell phone users in the Generation Y demographic use SMS (short-messaging service) compared to 31 percent of users in the Generation X demographic and only 18 percent of users in the Baby Boomer demographic.⁵⁵

Like Generation X, Generation Y carries its own devices – and even its own content. Members expect to remain connected wherever they go and continually look for new ways to access and interact with their personal content.⁵⁶ A recent study ranked the most-desired mobile applications of 13 to 24 year olds. Topping the list were music, mobile TV and video, and multi-player 3D gaming.⁵⁷ MMS, or multimedia message service, a mobile application that allows users to send different content file types, is also a popular with Generation Y. MMS use by Generation Y is estimated to grow by 50 percent by 2009.⁵⁸

The sheer magnitude of Generation Y has hoteliers already contemplating how best to design their guest rooms to accommodate them. The question for hoteliers to consider is which of their characteristics are present because they are young and which will persist as they age? Hoteliers do not want to make the cell phone the primary focus of their in-room technology

⁵³ See Joanna L. Krotz, “Tough customers: how to reach Gen Y,” *Microsoft Research*, 2005, available at http://www.microsoft.com/smallbusiness/issues/marketing/market_research/tough_customers_how_to_reach_gen_y.msp.

⁵⁴ See “More Mobile Owners Turning to Text Messaging,” *eMarketer*, Mar. 4, 2003, available at <http://www.upoc.com/corp/news/news-emarketer.html>.

⁵⁵ Rob McGann, “Generation Y Embraces SMS,” *Clickz.com*, Mar. 14, 2005, available at <http://www.clickz.com/stats/sectors/wireless/article.php/3489776>.

⁵⁶ “TMNG Study Reveals More Than Half of Youth market is Receptive to Commercially Supported Mobile Content,” *The Management Network Group*, May 2005.

⁵⁷ *Id.*

⁵⁸ *Id.*

decisions only to discover ten years from now that Generation Y’s extensive use of cell phones was nothing more than a phase and that a new, “cooler” device has displaced it.

D. Don’t Forget Grandma and the Kids

Over the last ten years, the hospitality industry has put most of its energy into wooing Generation X. But the Baby Boomers and Generation Y deserve attention as well. Figure 2 summarizes the varied preferences and characteristics of these three generations.

Figure 2. Generation to Generation: A Snapshot

GENERATION	CHARACTERISTICS	TRAVEL BEHAVIOR	PREFERRED TECHNOLOGIES	TECHNOLOGY ATTRIBUTES
BABY BOOMERS (1946-1964)	<ul style="list-style-type: none"> - 72 million - Average household income of \$56,000-\$58,000 - Exiting the workforce in the next 10 to 20 yrs - Family-oriented 	<ul style="list-style-type: none"> - Traveling less for business, more for leisure - Renewed interest in luxury travel and travel with grandkids 	<ul style="list-style-type: none"> - Television/cable TV - Internet 	<ul style="list-style-type: none"> - User-friendly - Easy accessibility - Plug-and-play
GEN X (1960-late 1970s)	<ul style="list-style-type: none"> - 40 to 45 million - Average household income of \$50,000 - Well-educated - Independent and individualistic 	<ul style="list-style-type: none"> - Corporate travelers that “cocoon” in their room - Preferred amenities include room service, in-room movies, and high-speed internet - Most willing-to-pay leisure travelers 	<ul style="list-style-type: none"> - Television/cable TV - Internet - Video games - Handhelds and portable devices 	<ul style="list-style-type: none"> - Fast - Seamless - Top-of-the-line
GEN Y (1977-1993)	<ul style="list-style-type: none"> - 60 million - Represent \$172 billion in annual spending - Practical and responsible - Heavily influenced by their peers 	<ul style="list-style-type: none"> - Travel with their devices - Still dependent on their parents for disposable income (87 percent) 	<ul style="list-style-type: none"> - Cell phones - Handhelds and portable devices - Internet 	<ul style="list-style-type: none"> - Facilitates communication - Content-driven

In particular, hoteliers should note two findings regarding these generations five to ten years out:

1. Baby Boomers will have more income at their disposal than Generation X and will be willing to spend it on luxury travel experiences as they enter retirement.
2. Generation Y is larger than Generation X and will be even more dependent on the portability and connectivity of their technology devices in the future.

III. Insight Three: It's All About Access and Content

The three very different generations are unified in their use of technology by one attribute: their desire to access content – whether voice, video, or data – wherever they are, whenever they want. The content epidemic is evident. In 2003, 746 million CDs and 17.5 million DVDs were sold.⁵⁹ Today the average U.S. household has 100 CDs of music, 40 DVDs of movies and 16 video game titles.⁶⁰

But content is only as good as the device that enables its delivery. The three generations examined rely on several significant devices. This section reviews three broad types:

1. *TV devices*, including the VCR, digital entertainment devices, and cable TV;
2. *Portable devices*, such as laptops, handhelds, and gaming devices; and lastly,
3. *Cell phones*, a handheld device that has been so disruptive to hoteliers it is deserving of its own analysis.

The story of how content – whether produced by individuals or other providers – has played a role in tipping the scales towards mass consumer adoption is instructive in understanding how the hotelier can anticipate the needs of tomorrow's guest.

⁵⁹ U.S. Census Bureau, Statistical Abstract of the United States: 2004-2005.

⁶⁰ See "CE Ownership and Market Potential," Consumer Electronics Association (CEA), 2005.

A. TV Devices

1. *The Birth of TV*

The television is ubiquitous. Most American households have at least two, on average, they have 3.1.⁶¹ Television provides easy access and makes available content suitable for everyone. It is easy to operate, relatively easy to navigate, and channels a variety of different content options. On any given day, at any given hour, a 50-something do it yourselfer, a 20-something rap music aficionado, a 70-something garden buff or a 40-something fashionista, can find a channel that suits their mood.

First introduced in the United States in 1929, the story of television, more so than that of any other medium, is the story of content-driving adoption.⁶² The first television program, “Felix the Cat,” was broadcast in 1949 in black and white on enormous boxes with 7 by 10 inch screens in 1949.⁶³ Older Baby Boomers will recall that it was not unusual for 10 to 20 family members and friends to huddle around a tiny screen to watch Felix’s latest escapades or TV variety shows such as the “Bob Hope Frigidaire Comedy Show” (in 1950), “The Perry Como Show” (in 1951), and “I Love Lucy” (in 1951).⁶⁴

In 1954, television became more colorful. The New Year’s Day Tournament of Roses Parade was broadcast coast to coast in Colorcast and RCA introduced the first color television for \$1,000.⁶⁵ At the time only 68 hours of color-TV programming were available.⁶⁶ But a year later in 1955, sales of color television languished while sales of black and white televisions continued to ramp up. For the next ten years, sales of black and white and color televisions

⁶¹ *Id.*

⁶² For more information on the history of the television, see <http://historytv.net/>.

⁶³ *Id.*

⁶⁴ For more information, see <http://www.shokus.com/variety.html>.

⁶⁵ Ed Reitan, “The Day a Black and White World Changed into Living Color,” NBC Color Television, 2004, excerpts available at http://www.novia.net/~ereitan/rose_parade.html.

⁶⁶ *Id.*

remained at that level with no real indication that color television would be fully embraced by consumers.⁶⁷ Due to insufficient color-TV programming, there was no compelling value proposition for consumers to purchase the more expensive color TV.

By the mid-1960s, all of that had changed. NBC had 800 hours of color programming and ABC had 600 hours.⁶⁸ By 1964, 1.5 million color TVs were being produced annually to keep pace with demand.⁶⁹ Color programming continued to be added by the studios and color became the de facto standard. Although the Baby Boomer generation was the first generation to be introduced to the TV, every generation thereafter has embraced it – today over 100 million U.S. households have a television set.⁷⁰

2. *The VCR Showdown*

Another home entertainment development in the Baby Boomer's life was a little tape recording device called the Sony Betamax.⁷¹ First bundled with a television set and sold for \$2,300 in 1975, this device was for the most discriminating movie buff who could afford the luxury of watching movies in the comfort of their own home.⁷² The concept of being able to pause and rewind was so novel that consumers did not seem to notice that, at the time, less than 50 movies were available.⁷³

⁶⁷ After the standard for color TV was set, *broadcasting stations* were quick to embrace the new technology and upgrade their facilities to accommodate color broadcasts, but stations and studios took a lot longer to comply with available programming. (*Id.*)

⁶⁸ See "Color Television," The Museum of Broadcast Communications, available at <http://www.museum.tv>.

⁶⁹ Ed Reitan, "The Day a Black and White World Changed into Living Color," NBC Color Television, 2004, excerpts available at http://www.novia.net/~ereitan/rose_parade.html.

⁷⁰ "ZDNet IT Facts," *Screen Digest*, Apr. 27, 2005, available at <http://www.itfacts.biz>.

⁷¹ For more information about Betamax, see <http://en.wikipedia.org/wiki/Betamax>.

⁷² See "BetaMax Tidbits," at <http://www.betainfoguide.com/Tidbits.htm>.

⁷³ *Id.*

Today, almost as many homes have video cassette recorders (VCRs) as have TVs.⁷⁴ In 1980, only one percent of homes owned a VCR; by 2004, well over 90 percent had at least one.⁷⁵ But today, consumers' VCR of choice is VHS, not Betamax. The story of Betamax's demise has become industry gospel.⁷⁶ In 1976, one year after the launch of Betamax, JVC released a rival VCR: VHS (video home system).⁷⁷ While the debate over which product is technologically superior continues, most industry pundits at least agree that one of the reasons VHS beat out Betamax is because of the content that was available on it.⁷⁸ In Jan. 1988, *TIME Magazine* noted: "While at first Sony kept its Beta technology mostly to itself, JVC, the Japanese inventor of VHS, shared its secret with a raft of other firms."⁷⁹ Even Sony founder, Akio Morita, acknowledges that Betamax failed because it did not license its formats to other companies.⁸⁰ Making its VHS content format the dominant format in the market helped JVC beat out rival Sony.

3. Time to Shift over, VHS

Since the introduction of the video cassette recorder, the television industry has made substantial strides in how the subsequent generations, X and Y, watch, program, and interact with content. Beginning with the launch of the digital video device (DVD) in 1996, the arrival and adoption of digital and time-shifted entertainment devices has proved an important turning

⁷⁴ VCR (short for video cassette recorder) is an analog magnetic recording and playback machine. Generally used for recording and viewing full-motion video. For more information, see http://www.thescratchpost.com/resources/fx/vfx_dict_v.shtml. Phillip Swan, "VCRs: The Beginning of the End," *TVpredictions.com*, Dec. 21, 2004.

⁷⁵ Everett Rogers, "Video is Here to Stay," Center for Media Literacy, available at http://www.medialit.org/reading_room/article260.html (visited Jun. 2005) and Phillip Swan, "VCRs: The Beginning of the End," *TVpredictions.com*, Dec. 21, 2004.

⁷⁶ For more background on the demise of Betamax, see "Whatever Happened to Betamax?," *Consumers' Research*, May 1989.

⁷⁷ For more information about VHS, see <http://en.wikipedia.org/wiki/VHS>.

⁷⁸ Jack Schofield, "Why VHS was better than Betamax," *The Guardian*, Jan. 25, 2003, available at <http://www.guardian.co.uk/online/comment/story/0%2C12449%2C881780%2C00.html>.

⁷⁹ See "Goodbye Beta," *TIME*, Jan. 25, 1988.

⁸⁰ See Akio Morita, *Made In Japan: Akio Morita and Sony* (HarperCollins, 1987).

point for television.⁸¹ In April, the *New York Times* quoted Bob Luff, Chief Technology Officer at Nielson, as stating that television and media will change more in the next 3 to 5 years than it has in the past 50.⁸²

Consumer demand for these technologies illustrates this change as well. As of the end of 2004, 65 percent of U.S. households had DVDs.⁸³ Eight percent of U.S. households currently have digital video recorders (DVRs) – made available shortly after the DVD in 1998.⁸⁴ It is projected that the DVR could be in over 10 million U.S. homes by the end of 2005, and in over half by 2010.⁸⁵

The high rates of adoption are largely a result of aggressive content development for the different mediums. In-Stat predicts that revenue from worldwide sales of all published DVD products will increase from \$33 billion in 2004 to \$76.5 billion by 2009.⁸⁶ The DVR, while it does not offer original content, increases the accessibility of existing content by allowing users to watch it whenever they want. This is an important feature for members of Generation X – the generation that has a propensity for anything that allows them individual control. Roughly 43 million Americans record TV programs so they can watch shows at different times, and the majority are in their 30s and 40s.⁸⁷ The generation most familiar with the VCR and recording

⁸¹ Jon Peddie, “The Hottest Thing Since Sliced Bread – DVD!!,” available at <http://www.dtvprofessional.com/articles/viewarticle.jsp?id=15335>. The DVD is an optical disc storage media format that is used for storing data. For more information, see <http://en.wikipedia.org/wiki/DVD>.

⁸² Jon Gertner, “Our Ratings, Ourselves,” *The New York Times Magazine*, Apr. 10, 2005, available at http://medialit.med.sc.edu/our_ratings_ourselves.htm.

⁸³ See “Digital America: Video Source Components,” Consumer Electronic Association, 2005, available at http://www.ce.org/publications/books_references/digital_america/home_theater/video_source_components.asp.

⁸⁴ See Richard Shim, “All shows, all the time,” *CNET news.com*, Apr. 11, 2005. DVR stands for “digital video recorder” and is also called a personal video recorder (PVR). A DVR records broadcasts on a hard disk drive which can then be played back at a later time (known as “time shifting”). For more information, see <http://www.flat-screen-tv.info/digital-television-glossary-1.htm>.

⁸⁵ Phillip Swann, “Biggest Hit of 2005: The Digital Video Recorder,” *TVpredictions.com*, Dec. 29, 2004 and Richard Shim, “All shows, all the time,” *CNET news.com*, Apr. 11, 2005.

⁸⁶ Phillip Swann, “Biggest Hit of 2005: The Digital Video Recorder,” *TVpredictions.com*, Dec. 29, 2004.

⁸⁷ Josh Bernoff, “Digital Video Recorders Take Flight,” Forrester Research, Apr. 16, 2004, available at <http://www.forrester.com/Research/Document/Excerpt/0,7211,34264,00.html>.

features best, the Baby Boomers, has also shown an interest – an estimated 31 percent of people over the age of 55 have a DVR at home.⁸⁸

4. *Content Together: Cable TV + VOD*

Technologies that enable consumers to start and stop television programs or movies when they want – “on demand” viewing – have been popularized in large part by cable television. Cable television offers consumers an additional library of content from which to choose. Cable TV did not take off from the onset – adoption rates rose slowly at the start and it has taken almost three decades for cable to reach half of American homes.⁸⁹ In 1980, the cable industry was still viewed as just a relay service for stations, with cable TV in only one of 5 U.S. households with TVs.⁹⁰ Around the same time, the cable industry began to realize the value-add of offering original channels and programming as part of its services. Every member of Generation X will remember the launch of MTV in 1981 – the cable industry’s first alternative content offering.⁹¹ The strategy paid off – especially with members of Generation X.⁹² The addition of recent video releases and shows exclusive to cable to the programming line-up helped cable to increase its dominance.⁹³ By 2000, more than 60 percent of U.S. households had cable programming.⁹⁴

But it is video on demand (VOD) that has turned the living room into a video store – providing the ability to view movies and other programming whenever, in the comfort of one’s

⁸⁸ *Id.*

⁸⁹ Everett Rogers, “Video is Here to Stay,” Center for Media Literacy, available at http://www.medialit.org/reading_room/article260.html (visited Jun. 2005).

⁹⁰ “The rise of cable television,” *Broadcasting & Cable*, Nov. 12, 2001, available at <http://www.broadcastingcable.com/article/CA181862.html>.

⁹¹ For more information on the role of MTV in the adoption of cable TV, see <http://en.wikipedia.org/wiki/MTV>.

⁹² “The rise of cable television,” *Broadcasting & Cable*, Nov. 12, 2001, available at <http://www.broadcastingcable.com/article/CA181862.html>.

⁹³ See, e.g., “The Entertainment Glut,” *BusinessWeek*, Jul. 1998, available at <http://www.businessweek.com/1998/07/b3565001.htm> and “United States: Cable Television,” *The Museum of Broadcast Communications*, 2005, available at <http://www.museum.tv/archives/etv/U/htmlU/unitedstatesc/unitedstatesc.htm>.

⁹⁴ *Id.*

own home. With the ability to call up things like the fifth game of the 1993 World Series or last week's episode of "Six Feet Under," consumers can, at the touch of a button, turn their living room into a movie theater.⁹⁵ In a recent study, ten percent of people polled said they watch video-on-demand services through their cable or satellite provider.⁹⁶ Members of Generation X are leading the demand for VOD services, similar to the way they drove demand for cable TV.⁹⁷

The proliferation of on-demand content is needed to facilitate the adoption of this device. VOD providers have started partnering with media corporations to beef up their content libraries for viewers.⁹⁸ Content targeted specifically at Gen X generated momentum for cable, and may do so for video on demand as well. According to Jupiter Research, the VOD market will reach \$1.4 billion in 2007.⁹⁹

5. High-Def TV, Too-Little Content

Another relatively new digital technology, High-Definition TV (HDTV), has had trouble gaining momentum.¹⁰⁰ HDTV finds itself in a situation similar to that of color TV 50 years ago – because its content is lagging, so is its rate of adoption. Although broadcasters across the board have pledged their commitment to providing HD programming, and each day more content is available – the menu is still sparse and offers mostly sports programming. ESPN contributed the

⁹⁵ Steven Levy, Brad Stone, Jennifer Ordonez, "Television Reloaded," *Newsweek*, Jun. 6, 2005.

⁹⁶ Russell Redman, "Study: Consumers Want Their Media On Demand And Online," *Digital Connect*, Mar. 23, 2005, available at <http://www.informationweek.com/showArticle.jhtml?articleID=159905577&tid=16032>.

⁹⁷ See *The 2003 Entertainment, Media & Advertising Market Research Handbook* (Richard K. Miller & Associates, 2002).

⁹⁸ See, e.g., "NBC Universal And CinemaNow Sign Distribution Agreement To Offer Video-On-Demand Service to Consumers," Feb. 1, 2005, available at <http://www.internetretailer.com/pressReleaseDetail.asp?id=14009>.

⁹⁹ "Marketing News," *Outburst Advertising*, May 2003, available at <http://www.outburstadvertising.com/mktg0503.html>.

¹⁰⁰ HDTV stands for High Definition Television, the highest-resolution subset of Digital Television. It provides film-like picture quality that is approximately twice as sharp as that of a standard TV set. For more information, see <http://www.hdtv-source.com/hdtv-terms.php>.

largest portion of HD programming in 2004 – producing 6,000 hours alone.¹⁰¹ While HDTV is catching on in some markets, overall sales are still unimpressive.¹⁰²

Generations X and Y have, however, shown an interest in HD content and are beginning to buy the digital devices that enable viewing of HD programming.¹⁰³ Overall, it is projected that, by the end of 2008, 59.3 million U.S. homes will own an HDTV and 57 million homes will view HD programming.¹⁰⁴ As flat-panel, HD-supported TVs continue to become more affordable and more and more HD content is developed, consumer adoption is likely to rise.

6. The TV of the Future

Since 1929, more than just the TV's technology has changed. How the TV is used has evolved – and become an interactive experience. Television viewers are no longer at the mercy of a programming schedule for their content selections. In addition, the TV has become more than just a video device – it is also an Internet device. Entrepreneurial companies are working to offer set-top boxes that allow downloaded broadband Internet content to be played on television.¹⁰⁵ Others are developing devices that allow consumers to link their TVs to newer computers that can run Microsoft Windows Media Center or other media software.¹⁰⁶ This interactivity has made the generations' different usages of, and preferences for, TV devices even more accentuated.

¹⁰¹ "ZDNet IT Facts," *Screen Digest*, Apr. 27, 2005, available at <http://www.itfacts.biz>.

¹⁰² By the end of 2005, less than 5 percent of households in the U.S. will have a television set with a high definition display. *See id.*

¹⁰³ Dominic Ainscough, "Forecast Predicts Nearly 60 Million U.S. Homes with HDTV by 2008," *Yankee Group*, Jul. 9, 2004, available at http://www.yankeegroup.com/custom/research/research_note.jsp?ID=11772.

¹⁰⁴ *Id.*

¹⁰⁵ *See* "Narrowcasting Your Show," *Associated Press*, May 15, 2005, available at <http://www.wired.com/news/digiwood/0,1412,67533,00.html>.

¹⁰⁶ *Id.*

7. Tuning in Hotels

As a result of the devices in their homes, never have travelers' expectations of television and TV devices in the hotel room been higher. Ten years ago, a hotel offering 15 channels in the guest room was not nearly as likely to have its market cannibalized by a rival boutique hotel offering 150 channels as it is today.

At the same time, hoteliers have never had so many TV devices to evaluate and determine the value-add to their guests. The best hoteliers can do is to try to glean insights from the current devices and their use and adoption by the three generations. Figure 3 summarizes these insights.

Figure 3. The Use and Adoption of Television Devices by Generation

DEVICE	CONTENT OFFERING	APPEALS TO	ADOPTION LESSONS
Color TV	- content accessibility	- Baby Boomers - Generation X - Generation Y	- Slow to replace black-and-white TV; Color-TV programming necessary before Baby Boomers adopted
VCR	- some control over content delivery - more content to choose from	- Baby Boomers	- JVC licensing of content key to Boomer's gravitation to VHS over Betamax
DVD/DVR	- greater control over content delivery - available content increasing	- Generation X - Baby Boomers	- Existing familiarity with recording devices (DVR), facilitated Baby Boomer adoption
Cable TV/VOD	- content choices that are varied and extensive - VOD content delivery controlled by user	- Generation X	- Cable slow to adopt; Lessons for VOD: Specific-content targeted at Gen X generated momentum for cable
HDTV	- content delivery of a better quality	- Slow to be adopted by any one generation	- Lack of readily-available content inhibiting growth

The lesson learned from TV devices is that content delivery and content selection are very important. Some of the preferences hoteliers should consider include:

1. For Baby Boomers, their comfort with recording devices is an important insight, as is the distinction that can be made between the programming content preferred by older Boomers (news, dramas) and the programming content preferred by younger Boomers (reality shows, comedies).
2. For Generation X, their desire to have control over the delivery of their content is not surprising given their individuality. Also, as evidenced by the cable TV story, this is a generation that, when offered compelling content, can sustain a market.

B. Portable Devices

1. Don't Leave Offices without It

The first portable computer was introduced in 1981 by the Osborne Computer Corporation.¹⁰⁷ Its portability is questionable though, as it weighed a total of 24 pounds.¹⁰⁸ By 1989, IBM, Compaq, Radio Shack, and Apple had all introduced lighter, smaller, and more compact versions of the portable computer, light enough to be coined “laptops”.¹⁰⁹ In May 2005, sales of laptops exceeded those of desktops as a percent of total PC retail computers – 53.3 percent v. 45.9 percent.¹¹⁰

As a result of two of its primary content capabilities – email and the Internet, the adoption of the laptop has been driven in large part by business travelers. In 2004, more than three-fourths of business travelers brought their laptops with them and two-thirds used it to

¹⁰⁷ For more information about the history of laptops, see <http://inventors.about.com/library/inventors/bllaptop.htm> and http://en.wikipedia.org/wiki/Adam_Osborne.

¹⁰⁸ See “History of Laptop Computers,” at <http://inventors.about.com/library/inventors/bllaptop.htm>.

¹⁰⁹ *Id.*

¹¹⁰ Michael Singer, “PC milestone--notebooks outsell desktops,” *CNet News.com*, Jun. 3, 2005, available at http://news.com.com/PC+milestone--notebooks+outsell+desktops/2100-1047_3-5731417.html.

connect to the Internet.¹¹¹ Half or more travelers who have wireless fidelity (wi-fi) on their laptops take advantage of it when at a hotel.¹¹²

But it is the laptop's ability to do more than send email and connect to the Internet that will further its adoption in the future. As a result of its increase in portability and media functionalities, such as the ability to play DVDs or music, travelers are carrying laptops even when the purpose of their trip is not about business. Forrester Research estimates that 56 percent of leisure travelers bring their laptops with them.¹¹³ A recent article in the *New York Times* suggests that 40 percent of all entrepreneurs keep in touch with the office while vacationing – 38 percent of whom are managers and 33 percent of whom are employees.¹¹⁴ In the near future, the laptop's popularity across travel segments will continue to earn it a place in the guest room.

3. *The Palm in Their Hand*

While the laptop is currently a popular device for accessing email and Internet, since its invention, an even more portable device – the PDA (personal digital assistant) has appeared on the market that could someday displace it. Apple Computer developed one of the earliest PDAs, the Apple Newton and sold it in 1993.¹¹⁵ But PDAs were relatively overlooked until the invention of the Palm Pilot in 1994.¹¹⁶ Made widely-available in 1996, consumers were more receptive to the Palm than the Apple Newton because it was cheaper, smaller, and easier to

¹¹¹ Henry H. Harteveltd et al, "Travelers' Mobile Device Ownership Will Spur Wi-Fi," *Forrester Research*, Apr. 29, 2004, available at <http://www.forrester.com/Research/Document/0,7211,34304,00.html> and Will Sturgeon, "Business travellers 'have laptop, will surf'," *Silicon.com*, Apr. 19, 2005 available at <http://management.silicon.com/itdirector/0,39024673,39129679,00.htm>.

¹¹² Christina Valhouli, "The best Wi-Fi hotels: Some 6,000 hotels around the world offer the service," *Forbes*, Apr. 29, 2004, available at <http://msnbc.msn.com/id/4863198/>.

¹¹³ Henry H. Harteveltd et al, "Travelers' Mobile Device Ownership Will Spur Wi-Fi," *Forrester Research*, Apr. 29, 2004, available at <http://www.forrester.com/Research/Document/0,7211,34304,00.html>.

¹¹⁴ Hubert B. Herring, "Laptop Packed? Cellphone Charged? Ready, Set, Relax!" *New York Times*, Jun. 12, 2005.

¹¹⁵ For more information on the Apple Newton, see http://en.wikipedia.org/wiki/Apple_Newton.

¹¹⁶ *Id.*

use.¹¹⁷ Despite declining sales of PDAs, Palm carried its lead into the 21st century. In 2002, shipments of PDAs declined by 9.1 percent, but Palm still outsold its closest rival Hewlett-Packard by three million devices.¹¹⁸ Palm lost some ground with the introduction of smartphones, but overall, the PDA market remains a formidable one.¹¹⁹ As of 2004, ten percent of Americans were using at least one PDA.¹²⁰

The adoption of PDAs has been driven by their ability to manage many different types of content. In 2004, a survey of Pocket PC owners found that 85 percent used their Pocket PC for organizing their lives first and foremost, followed by playing games (64 percent), listening to music (60 percent) and browsing the Internet (57 percent).¹²¹ The average age of the owners surveyed was 35, and their responses speak to Generation X's preferences for more complex devices that can serve several functions.¹²²

4. Move with the Music

One of the earliest portable communications devices, the Sony Walkman, introduced consumers to the notion of technology that travels in 1979.¹²³ Despite its initial price point of \$300, the popularity of the Walkman spread quickly among a young Generation X.¹²⁴ It remained that way until the 1990s, when CD players and digital devices flooded the market.¹²⁵ Today, sales of portable digital music devices are growing rapidly, forecasted to reach 18.2

¹¹⁷ *PC Computing* awarded it "Usability Achievement of the Year." (See Personal Digital Assistants, at http://en.wikipedia.org/wiki/Personal_digital_assistant.)

¹¹⁸ Tom Krazit, "PDA Sales Slip, but Palm Still Leads," *PC World*, Jan. 27, 2003, available at <http://www.pcworld.com/news/article/0,aid,109027,00.asp>.

¹¹⁹ "Nokia, Symbian Smartphone Domination Grows," *Mobile Pipeline*, Apr. 26, 2005, available at <http://www.internetweek.com/161600622>.

¹²⁰ Henry H. Hartevelde et al, "Travelers' Mobile Device Ownership Will Spur Wi-Fi," *Forrester Research*, Apr. 29, 2004, available at <http://www.forrester.com/Research/Document/0,7211,34304,00.html>.

¹²¹ See "SPB Software House Announces the Results of Spb Pocket PC Survey," *PDA Newswire*, Oct. 7, 2004, available at <http://www.pdanewswire.net/news/s/EpAZkyVAkpbfERuKBQ.shtml>.

¹²² *Id.*

¹²³ For more information on the history of the Sony Walkman, see http://en.wikipedia.org/wiki/Sony_Walkman.

¹²⁴ *Id.* and Sony Corporation, "Sony History," available at <http://www.sony.net/Fun/SH/1-18/h3.html>.

¹²⁵ *Id.*

million by the end of the year.¹²⁶ That number is projected to reach 56.1 million by 2010, and 500 million worldwide – one for every 15 people on the planet.¹²⁷

The increased availability of music content has played a significant role in the growth of digital music players. The iPod is an interesting case study that illustrates the importance of available content. The iPod digital music player was introduced by Apple in 2001. Two years later, Apple launched its corresponding iTunes music store, selling music files stored as a file type supported only by iPod. The development and maintenance the store requires exceeds the returns – Forrester Research puts the average profit margin on an a la carte song at \$.04.¹²⁸ But Apple continues to invest in the store as the additional content drives purchases of the lucrative iPod.¹²⁹ The strategy has paid off – Apple recently sold its 10 millionth iPod.¹³⁰

Not only is content's availability important, but so is the ability to personalize it. The idea of a playlist – a personalized list of music files – has encouraged the adoption of music devices by all generations. A Jun. 2000 article in *Business Week*, notes: “What started as a college addiction has gone mainstream, as millions of people of all ages download music from the Internet.”¹³¹ Both Generations X and Y have been especially responsive to a technology that

¹²⁶ David Becker, “Rockin' growth seen for MP3 players, *CNET News.com*, Apr. 13, 2005, available at http://news.zdnet.com/2100-1040_22-5669761.html.

¹²⁷ *Id.* and Paul Sloan and Paul Kaihla, “What’s Next for Apple?,” *Business 2.0*, Apr. 2005 (quoting Charlie Wolf, an analyst with Needham & Co.).

¹²⁸ Josh Bernoff, “2004 Digital Music Forecast,” Forrester Research, Jan. 28, 2004.

¹²⁹ The iPod sells for anywhere between \$299 to \$499 and The Yankee Group estimates the component cost to Apple is about \$150. (See Michael Goodman, “Pumping Up the Volume for Online Music Services,” Yankee Group, Jan. 2004.)

¹³⁰ “Apple Unveils New iPod mini Starting at Just \$199,” Apple Corporation Press Release, Feb. 23, 2005, available at <http://www.apple.com/pr/library/2005/feb/23ipodmini.html>.

¹³¹ Alex Salkever, “Ultimate Jukebox: The ABC's of MP3: Speedy connections and more choice mean e-music isn't just for college kids anymore,” *BusinessWeek*, Jun. 5, 2000, available at http://aol.businessweek.com/2000/00_23/b3684160.htm.

reinforces their individuality – one in five people under the age of 30 has purchased a digital music device.¹³²

5. *Get in the Game*

Technology has changed since Atari released the first video game, “Pong,” in 1972.¹³³ With two paddles and a ball that bounced across the screen in a tennis-like fashion, audiences were captivated – or at least briefly entertained. The concept of the video game platform and games that operated on that platform emerged in the mid 1970’s, 1976 alone saw the release of 53 video games for platforms, and popular games such as Pac Man, Donkey Kong, and Asteroids, captivated a young Generation X.¹³⁴ Ongoing, aggressive content production has been critical to draw the attention of the generation that followed – the also impulsive Generation Y.

Like computer and music technology, video technology has evolved into a portable state. Nintendo Game Boy and Tetris pioneered the handheld game market and taught consumers to expect the freedom to take video games wherever they went. The Game Boy, launched in the United States in 1991 and featuring Tetris – an already popular game – allowed expansion from a single game to many games and had cartridges that enabled easy switching from one game to the next.¹³⁵ The device was wildly popular and sold over 32 million units worldwide in the three years following its release.¹³⁶ As adoption of the device grew, more and more games were

¹³² Brad Gibson, “11% of U.S. Owns an iPod or MP3 Player, New Study Finds,” *The Mac Observer*, Feb. 15, 2005 (citing Pew Internet and American Life Project survey from Jan. 13 - Feb. 9, 2005), available at <http://www.macobserver.com/article/2005/02/15.11.shtml>.

¹³³ William Hunter, “The History of Video Games: From ‘Pong’ to ‘PacMan’,” *DesignBoom.com*, Sep. 2000, available at <http://www.designboom.com/eng/education/pong.html>.

¹³⁴ *Id.*

¹³⁵ For more information about the history of Nintendo Gameboy, see <http://en.wikipedia.org/wiki/Gameboy>, “The History of the Nintendo Gameboy,” at <http://www.destroy-all-monsters.com/gameboy1.shtml>, and “Game Boy,” at http://www.cyberiapc.com/vgg/nintendo_gameboy.htm.

¹³⁶ *Id.*

written for it and released. By 2004, the original Game Boy accounted for 650 available games.¹³⁷

A market once thought of as just for kids is anything but.¹³⁸ The average age of the video game player is 30.¹³⁹ While Generation Y makes up 35 percent of gamers, Generation X makes up 43 percent.¹⁴⁰ The handheld video game market is poised for growth among Generation X – thanks to industry plans to develop more mature video games.¹⁴¹ An analyst at Jupiter Research observes, “As device manufacturers and content developers cater to broader audiences, we will see some amazing things happen...”¹⁴² Meanwhile, the number of handheld game players is forecast to grow to 43 million by 2009.¹⁴³

Interactive gaming and networked computers that enable one person to compete with another have spurred the next generation of gaming. As the Internet has grown, so has the ease with which gamers connect and play with friends and strangers across the country and across the world.¹⁴⁴ These devices will not see their popularity decline any time soon.

6. Keeping Pace

In the future, these numerous mobile devices will enable travelers to transport the technology environments from their home or office into the guest room. Already today most travelers carry a minimum of two portable devices with them – usually a combination of a cell

¹³⁷ *Id.*

¹³⁸ “Video Gamers Make Good Surgeons,” CBS News, Apr. 7, 2004, available at <http://www.cbsnews.com/stories/2004/04/07/health/main610601.shtml>.

¹³⁹ See “2005 Sales, Demographics & Usage Data: Essential Facts about the Computer and Video Game Industry,” Entertainment Software Association, 2005, available at <http://www.theesa.com/files/2005EssentialFacts.pdf>.

¹⁴⁰ *Id.*

¹⁴¹ See “Nintendo Sales,” *Reuters*, May 22, 2003 and “The Young Adult Market: Generation X Grows Up,” *Packaged Facts*, 2001, available at <http://www.marketresearch.com/map/prod/376471.html>.

¹⁴² “Study: Portable gamers to nearly double by 2009,” *CNET News.com*, May 11, 2004, available at http://news.zdnet.com/2100-9584_22-5210195.html.

¹⁴³ *Id.*

¹⁴⁴ See Olga Kharif, “The New Game Machine: Your TV,” *BusinessWeek*, Mar. 1, 2005, available at http://www.businessweek.com/technology/content/mar2005/tc2005031_2320_tc119.htm.

phone and then either a laptop, PDA, or music device. Which of these devices they carry is dependent on their generation, as summarized in Figure 4.

Figure 4. The Use and Adoption of Portable Devices by Generation

DEVICE	CONTENT OFFERING	APPEALS TO	ADOPTION LESSONS
Laptops	<ul style="list-style-type: none"> - Primarily a business tool - supports the Internet, email - Has evolved into a tool for the home as well – calendars, personal email, bills paid online 	<ul style="list-style-type: none"> - Baby Boomers - Generation X 	<ul style="list-style-type: none"> - Carried by more leisure travelers as its functionality has increased - Potential for the more portable PDA to displace it in the future as primary device for accessing email and the Internet
PDA's	<ul style="list-style-type: none"> - Offers many functions - Email 	<ul style="list-style-type: none"> - Generation X 	<ul style="list-style-type: none"> - Number of content pieces it manages (calendar, email, games), in combination with its usability, fostered adoption
Music Devices	<ul style="list-style-type: none"> - Original mobile device (Walkman) - Ability to customize content through playlists 	<ul style="list-style-type: none"> - Generation X - Generation Y 	<ul style="list-style-type: none"> - Availability and personalization of content responsible for the popularity of music devices like the iPod
Gaming Devices	<ul style="list-style-type: none"> - Interactive entertainment that travels well 	<ul style="list-style-type: none"> - Generation X - Generation Y 	<ul style="list-style-type: none"> - Similar adoption story as music devices; New and original content necessary to hold the interests of its easily diverted consumer base

Some hoteliers have been quick to adapt to this phenomenon – supplying many of these devices for their guests’ use. Several brand hotels offer iPods for rent upon request.¹⁴⁵ While this strategy taps into the popularity of the iPod, it does not address guests’ desire to access their own

¹⁴⁵ Hotels like the W and the Ritz-Carlton offer the iPod to their guests upon request with a variety of different music options available as well as the option to download new songs. (See Adelia Cellini, “Hotels begin offering iPods to guests: enjoy your stay” *Hotels*, Apr. 1, 2005.

content. There is a movement afoot in many hotels to integrate the connectivity of the portable music devices into the guest room.¹⁴⁶

The lesson learned by examining consumers' preferences for various portable devices is that the device is often peripheral to the content it channels. Before stockpiling guest rooms with every portable device available, hoteliers should remember:

1. Generation X is drawn to devices that enable them to personalize or customize their content.
2. Both Generations X and Y are impulsive groups – not in the sense that they are quick to buy, but in the sense that they are easily diverted by more attractive offerings.

Compelling content is required to maintain their interest.

C. Cell Phones

1. Can You Hear Them Yet?

Cell phone technology was first embraced by the military because it allowed easy access to those in the field. Cell phones began to proliferate in the 1980s with the introduction of phones based on cellular networks that transmitted analog signals.¹⁴⁷ The first cell phones weighed 30 ounces and cost approximately \$3,500.¹⁴⁸ Similar mobile phones were launched, mobile only because they were designed for installation in cars.¹⁴⁹ In 1983, Motorola introduced the first literally portable, mobile phone.¹⁵⁰ The development of more advanced cellular networks would

¹⁴⁶ For more on the efforts employed by Marriott and Hyatt to seamlessly integrate connectivity into their new redesigned rooms, see Avery Johnson, "Hotel Rooms Get A Major Overhaul," *Wall Street Journal*, May 11, 2005.

¹⁴⁷ For more information about the history of mobile phones, see http://en.wikipedia.org/wiki/History_of_mobile_phones.

¹⁴⁸ In 1983, Motorola introduced the 16-ounce "DynaTAC" phone into commercial service, with each phone costing \$3,500. (See "Martin Cooper - History of Cell Phone," *About.com*, available at http://inventors.about.com/cs/inventorsalphabet/a/martin_cooper.htm.)

¹⁴⁹ See "History of mobile phones," at http://en.wikipedia.org/wiki/History_of_mobile_phones.

¹⁵⁰ "Martin Cooper - History of Cell Phone," *About.com*, available at http://inventors.about.com/cs/inventorsalphabet/a/martin_cooper.htm.

follow, as would additional generations of devices – first with digital phones, or 2nd Generation in 1990, then with 3G in 2000.¹⁵¹

At the onset, cell phones were not for everyone. The bulk cell phone was the signature item of the savvy businessmen, popularized by Michael Douglas's character Gordon Gekko in the movie *Wall Street*. The mind-set was reinforced by its high initial operating and ownership costs. But as the cost of phones and corresponding plans began to decrease, it did not take long for the value of voice services coupled with mobility to become clear to consumers. By 2000, one in two adults owned a cell phone, and today, nearly three-quarters of adults do.¹⁵²

2. *Reach Out and Text Someone*

The introduction of data services such as short text messaging (SMS) has provided consumers with another way to communicate via the cell phone. SMS allows users to send short messages between mobile phones and other handheld devices¹⁵³ The first text message was sent in the United Kingdom in 1992 from a PC to a mobile phone.¹⁵⁴ The technology was further developed by mobile carriers like DoCoMo and France Telecom in Asia and Europe, respectively, before it was introduced by U.S. carriers like Verizon Wireless and AT&T Wireless.¹⁵⁵

In the United States, the appeal of SMS was initially limited. In 2003, although sending an SMS cost only about \$.05, the average user sent only 13 messages.¹⁵⁶ The slow adoption of mobile data phones was largely due to the fact that consumers did not associate the cell phone

¹⁵¹ See "History of mobile phones," at http://en.wikipedia.org/wiki/History_of_mobile_phones.

¹⁵² Joseph Carroll, "Cell Phone Users Have Little Interest in Number Portability," *Gallup*, Dec. 8, 2003, available at <http://www.gallup.com/poll/content/login.aspx?ci=9856> and "34 Million American Adults Send Text Messages On Their Cell Phones," *Government Technology*, Mar. 15, 2005 (citing Pew Internet and American Life Project survey from Jan. 13 - Feb. 9, 2005), available at <http://www.govtech.net/news/news.php?id=93381>.

¹⁵³ For more information on SMS, visit http://en.wikipedia.org/wiki/Short_message_service.

¹⁵⁴ *Id.*

¹⁵⁵ "Say It With Text Messaging," Associated Press, Jun. 27, 2003, available at <http://www.cbsnews.com/stories/2003/06/27/tech/main560784.shtml>.

¹⁵⁶ See Short Messaging Service, at http://en.wikipedia.org/wiki/Short_message_service.

with text messaging.¹⁵⁷ Instead, handhelds filled the market for mobile data services, offering either a touch-screen and pen or a QWERTY keyboard.¹⁵⁸ Consumers, particularly Baby Boomers and Generation X more familiar with the PC, were not comfortable enough with the cell phone and its numbered keys to use it to construct text messages.

SMS is slowly gaining acceptance in the United States. Among the nation's 134 million adult cell phone users, people between the ages of 18 to 27 are the largest users of text messaging services – an estimated 63 percent use this service.¹⁵⁹ Other age groups have indicated an interest as well. One in three members of Generation X use text messaging services, as do one in five young Baby Boomers (those aged 40 to 49).¹⁶⁰ Text messaging has not appealed to older Baby Boomers, however, with only 13 percent of those between the ages of 50 and 59 use text messaging services and only seven percent of those over 60.¹⁶¹

New content offerings are responsible for Generation X and Y's adoption of text messaging. Consider, for example, AT&T's 2003 collaboration with the reality television program, "American Idol", especially popular with Generation Y. Real-time text voting enabled viewers who were also AT&T subscribers to vote for their favorite "idol", participate in polls, and receive the latest news and updates. This strategy generated the highest text messaging traffic the United States had seen to date – almost 1,000 text messages per second were received

¹⁵⁷ See Yardena Arar, "Well-Connected Handhelds," *PC World Magazine*, Sep. 2003, available at <http://www.pcworld.com/reviews/article/0,aid,111642,00.asp>; Joni Blecher, "The truth behind camera phones, switching networks, and more," *CNET Reviews*, Oct. 29, 2003, available at http://reviews-zdnet.com/4520-3504_16-5096077-1.html; and, Richard Comerford, "Handhelds duke it out for the Internet," *IEEE Spectrum*, Vol. 37, Aug. 2000, available at <http://www.spectrum.ieee.org/publicfeature/aug00/appl.html>.

¹⁵⁸ *Id.*

¹⁵⁹ Rob McGann, "Generation Y Embraces SMS," *Clickz.com*, Mar. 14, 2005, available at <http://www.clickz.com/stats/sectors/wireless/article.php/3489776>.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

during each show.¹⁶² One show alone received more than 2.5 million text messages.¹⁶³ The pursuit of similar content partnerships by mobile operators has begun to fuel the growth of SMS.

3. Cell Phones Go Hollywood

Today, in addition to voice and data, cell phones are enabled with technologies that provide access to TV, music, and video. In 2004, 38 percent of cell phones were equipped with a camera.¹⁶⁴ In 2 years, it is estimated that 70 percent of all cell phones will have built-in digital television receivers.¹⁶⁵ By 2008, the U.S. mobile game revenues have increased from their current level of \$590 million to \$1.5 billion.¹⁶⁶

But further analysis shows that consumer adoption of the cell phone as a multimedia device is not a done deal. The importance for the device to do what it does well – communicate via voice – is at the forefront and, as devices inevitably continue to converge, content providers will need to make a strong case about the advantages of using it in order for people to embrace the expanded technology and pay the extra dollars for their services. Take the smartphone, for example.¹⁶⁷ Smartphones are mobile phones that also provide access to additional applications such as a calendar, address book, email, and games.¹⁶⁸ IBM introduced the first smartphone in

¹⁶² “AT&T Wireless and American Idol Set Global Records in Text Messaging,” *Business Wire*, Jun. 4, 2003, available at http://www.findarticles.com/p/articles/mi_m0EIN/is_2003_June_4/ai_102752022 and Glenn Letham, “Nokia 3650 Hits Prime Time... will it become the next "American Idol"?” *Wireless Developer Network*, May 07, 2003, available at <http://www.wirelessdevnet.com/newswire-less/may072003.html>.

¹⁶³ “Mobliss Powers Largest Text Messaging Campaign in U.S. History For "American Idol" Season 4,” *Forbes.com*, May 14, 2005, available at <http://www.forbes.com/businesswire/feeds/businesswire/2005/03/14/businesswire20050314005852r1.html>.

¹⁶⁴ “Camera Phone Sales Beat Digital Still Cameras Sales In 2004,” *Telstreet.com*, May 10, 2005, available at <http://www.telstreet.com/news/articles/camera-phone-sales-beat-digital-still-cameras-sales-in-2004.html>.

¹⁶⁵ Ben Charny, “For cell phones, it's TV to the rescue,” *CNET News.com*, Oct. 25, 2004, available at http://news.com.com/For+cell+phones,+its+TV+to+the+rescue/2100-1039_3-5423178.html?tag=nl.

¹⁶⁶ Paul Hyman, “Mobile Games Give Consoles a Run for their Money,” *The Hollywood Reporter*, Dec. 20, 2004.

¹⁶⁷ A smartphone is generally considered any handheld device that integrates personal information management and mobile phone capabilities in the same device. Often, this includes adding phone functions to already capable PDAs or putting "smart" capabilities, such as PDA functions, into a mobile phone. For more information, see <http://en.wikipedia.org/wiki/Smartphone>.

¹⁶⁸ For more information about smartphones, see <http://en.wikipedia.org/wiki/Smartphone>.

1992.¹⁶⁹ Since, companies like Nokia, Symbian and Palm have risen to dominate the market.¹⁷⁰ But while smartphones have become popular elsewhere in the world, they have not taken hold in the U.S. consumer market.¹⁷¹ Smartphones tend to receive a poorer signal, a critical performance measure for a device that has been primarily used for business, secondarily for leisure.¹⁷² Additionally, consumers who fall into the latter category likely find the device too complicated.¹⁷³ The ability to make one device “do it all” has not proven the Holy Grail yet, especially when it compromises what the device should do well or adds too many layers of complexity for adoption across a broad spectrum of users.

4. TV over Cell Phones?

The added ability to watch TV would seem to be a logical next step in the cell phone’s evolution – TV is the most popular consumer application and cell phones are the most popular telecommunication application.¹⁷⁴ Since 2004, mobile phone operators like Verizon and Sprint PCS have launched television-over-cell-phone services. Content offerings include news clips, music videos, and short-episodes of popular television programs.¹⁷⁵

The ability to view short TV segments on the cell phone is attractive in certain situations. Short news and sports highlights have the obvious advantage of allowing people to keep up-to-

¹⁶⁹ *Id.*

¹⁷⁰ “Nokia, Symbian Smartphone Domination Grows,” *Mobile Pipeline*, Apr. 26, 2005, available at <http://www.internetweek.com/161600622>.

¹⁷¹ Jennifer Tan, “Gadget-hungry Asia to lead demand for smartphones,” *Reuters*, Jul. 13, 2004, available at http://www.usatoday.com/tech/wireless/phones/2004-07-13-smartphone-surge_x.htm?POE=TECISVA.

¹⁷² Heather Clancy, “On the Road Again? Then don't forget to pack these tech essentials,” *Entrepreneur Magazine*, Nov. 2004, available at <http://www.Entrepreneur.com/article/0,4621,317519,00.html>.

¹⁷³ Chris Charron, “Devices-Alert: Convergent Technologies, Divergent Devices,” *Forrester Research*, Mar. 7, 2005. (“The falling cost of technology, the proliferation of single-function devices, and the growing popularity of consumer bundles mean that products (and companies) of the future will have to blend hardware, software, and services. Technology is converging across a broad range of devices (i.e. TVs, PCs, phones, etc) and functions (video editing, messaging, search, etc) while the most successful new products will be those that focus on what they are good at (i.e. Apple iPod v. iPhoto) – a small set of consumers will embrace technology converged into one device for example the Smartphone (combination of PDA and phone).”)

¹⁷⁴ Donna Fuscaldo, “Reality: TV by Cellphone,” *Wall Street Journal*, Mar. 10, 2005.

¹⁷⁵ Peter J. Howe, “Verizon to unveil TV plan,” *The Boston Globe*, Jan. 8, 2005, available at http://www.boston.com/business/personaltech/articles/2005/01/08/verizon_to_unveil_tv_plan?mode=PF.

date on current events regardless of their whereabouts. However, long term adoption of this feature is still uncertain. There is little TV content available and access to what is available is costly. It is also unclear whether consumers, even members of Gen Y, will readily adopt TV on such a small screen with minimal channel and programming choices.

5. Cell Phones and Generation Y(ak)

Cell phones have truly changed the way people communicate. Using a cell phone to communicate via voice is still the preferred method of staying in touch – simple and straightforward – and resonates across all generations – 76 percent of members of Gen X own a cell phone, as do 75 percent of younger Baby Boomers, 68 percent of older Baby Boomers, and 62 percent of over the age of 60.¹⁷⁶

But the cell phone resonates loudest with Generation Y. They outspend adults on cell phones and upgrades and have wasted no time in embracing its features in addition to voice such as data and video.¹⁷⁷ As one analyst notes, “Cell phones are extremely popular with young people. They are as crazy about the text feature on their phones as they are about the voice feature. ... Young people are using these devices to carry on perpetual conversations.”¹⁷⁸

For Generation Y, using cell phones to communicate is not just about convenience, it is about a way of life. In a 2005 article by *The Boston Globe*, three teenagers were followed for one week during which they were asked to give up their cell phones.¹⁷⁹ After a week without mobile calls and text messaging, the three teenagers, who had grown accustomed to instant

¹⁷⁶ See “34 Million American Adults Send Text Messages On Their Cell Phones,” *Government Technology*, Mar. 15, 2005 (citing Pew Internet and American Life Project survey from Jan. 13 - Feb. 9, 2005), available at <http://www.govtech.net/news/news.php?id=93381>.

¹⁷⁷ Ben Charny, “For cell phone makers, Gen Y = Gen \$,” *CNET News.com*, Mar. 20, 2001, available at http://news.zdnet.com/2100-9595_22-804307.html.

¹⁷⁸ Rob McGann, “Generation Y Embraces SMS,” *Clickz.com*, Mar. 14, 2005, available at <http://www.clickz.com/stats/sectors/wireless/article.php/3489776>.

¹⁷⁹ Irene Sege, “Disconnected: How three teenagers went a week without cellphones and instant messaging, and lived to tell about it,” *The Boston Globe*, Jun. 2, 2005, at D1.

communication, were vocal about their dislike of being disconnected from friends and family. They are not alone. A 2003 survey asked teenagers to name the one device they could not live without. The cell phone came in fourth – just below their PC, their car, and their toothbrush.¹⁸⁰ It appears unlikely that this generation will outgrow its staggering preference for this device any time soon.

6. A Headache for Hoteliers

The cell phone has been possibly one of the most disruptive devices in hotel history. It has single-handedly caused the complete demise of a once important revenue stream – guests’ telephone bills. History may repeat itself too, as cell phones evolve into devices that enable TV, movies, and gaming to be streamed right into guests’ hands.

Travelers show no sign of putting the cell phone down. *Wall Street* was a long time ago, but today, nearly every business traveler carries one. Their use is not isolated to the business travel segment either. In 2004, nine out of 10 leisure travelers carried a cell phone with them.¹⁸¹

The hospitality industry’s initial reaction has been panic. Many hotels are trying to entice guests away from their phones by offering high-speed and long distance telephony packages, while others are exploring the consumer benefits of Voice-over-IP (VoIP).¹⁸² Thus far, however, neither of these technologies have proven to add sufficient value or increase guest loyalty.¹⁸³

Hoteliers may have to accept that their guests are going to use their cell phone as a way to communicate. But that does not make the voice services hoteliers offer extraneous. Depending

¹⁸⁰ “Give Us Our Toothbrushes, Americans Say,” *The Business Journal*, Jan. 24, 2003, available at <http://www.business-journal.com/LateJan03/ToothbrushTops.html>.

¹⁸¹ Henry H. Harteveltdt et al, “Travelers’ Mobile Device Ownership Will Spur Wi-Fi,” *Forrester Research*, Apr. 29, 2004, available at <http://www.forrester.com/Research/Document/0,7211,34304,00.html>.

¹⁸² See, e.g. Ron Gaj, “Room Service, No Dialing,” *HiInsider*, Nov. 16, 2004, available at http://www.hotelinteractive.com/index.asp?page_id=4000&article_id=3898; “Montreal Best Western Uses Wireless Network For More Than Just Internet,” *Hotel Business*, Oct. 6, 2004; and “Langham Place Hotel First to Offer Guests Convenience of All-Wireless and All-Color Cisco IP Telephones,” *HospitalityNet.org*, May 11, 2004, available at <http://www.hospitalitynet.org/news/154000353/4019451.html>.

¹⁸³ *Id.*

on the generation, there are a number of features hoteliers can incorporate into their guest rooms to improve the cell phone experience. Consider some of the adoption lessons imparted by the cell phone and its related offerings summarized in Figure 5.

Figure 5. The Use and Adoption of Various Cell Phone Services by Generation

CELL PHONE USE / OFFERING	APPEALS TO	ADOPTION LESSONS
Voice	- Baby Boomers - Generation X - Generation Y	- Voice as a type of content has a significant value, regardless of age
SMS/Text messaging	- Generation Y - Generation X	- Lack of comfort and familiarity with the technology were impediments - Content generated for specific audience (Gen Y) fueled adoption
Multimedia	- Generation Y	- Convenience is only one reason for Gen Y's adoption - Devices that try to do too much may lose their appeal in the process
TV	- Still being developed	- Could experience slow growth without readily-available content

The lesson learned from cell phones is that voice is too important a content type, and the cell phone too important a vehicle for its delivery, to ignore. Generation Y, the segment hoteliers are most likely to see in their hotel rooms tomorrow, is also the segment with the greatest dependency on the cell phone. Here are a few recommendations for hoteliers looking to prepare themselves:

1. The cell phone will continue to be a prominent device regardless of generation.

Although the content for this device (voice communications) cannot be tailored for

- the guest by the hotelier, hoteliers can differentiate themselves by the delivery of the content (e.g. providing a strong signal in the guest room).
2. Generation Y has high expectations for the cell phone. Hoteliers interested in catering to this segment in the future might consider docking stations that enable additional functionality in the room – perhaps the ability to recharge or receive calls from other guests.

IV. Insight Four: Familiarity Breeds Disruption (for Hoteliers)

The common thread to all of these technologies and devices is that their adoption has responded to three important needs – access, mobility, and personalization – and one irrefutable principle – their use is based almost entirely on the technologies that they are most comfortable using. Baby Boomers are most comfortable with the television and the PC, Generation X straddles the PC and portable devices, while Generation Y has grown up using cell phones for much of what they do. Their preferences are reflected in their choice of medium to access their content whenever and wherever it is needed.

From the hoteliers' standpoint, in-room technology is at a point of creative destruction. Serving tomorrow's guest will no longer be about providing a menu of pay-per-view movies, 13 television channels and a wired or wireless broadband connection. The guest of the future will want more of what many travelers are asking for today – that ability to accommodate their preference for access to content within the walls of the hotel. The content will be provided and channeled in a variety of ways. Some of it may be the guest's – perhaps projected on a flat panel television or piped throughout the room from a portable music player in a cradle. Some of it may be the hotelier's – perhaps custom-prepared and served up on one of several devices determined

by their guests' preferences and reason for traveling. In other words, a one-size solution won't fit all. Hoteliers will have to adopt an infrastructure that allows them to efficiently respond to many diverse preferences.

A. Across the Generations

Knowing the appropriate way to respond requires identifying the guest of the future. Many hoteliers speak of the guest of future in terms of Gen X and rightfully so. Generation X will represent a significant portion of the traveling population over the next five to fifteen years – traveling both for business and pleasure. They are the future free-spenders – a recent American Express survey found that the wealthiest members of Gen X have an average income of \$213,000 and spend 18 percent more than Baby Boomers on luxury goods annually.¹⁸⁴ And when members of Gen X vacation, they spend more per trip than Baby Boomers – \$2,140 compared to \$2,016 – and the trend is expected to continue.¹⁸⁵

But during that same period, Baby Boomers will also be traveling – likely at the same pace they travel now – with business trips spilling over into leisure weekend escapes.¹⁸⁶ Ten years from now, the first wave of Baby Boomers will begin entering retirement. Ten years after that, most will have retired from their career jobs. While they will disappear from the business travel segment, they may remain a formidable economic force as they continue to travel for leisure.

Generation Y is a segment that may also drive demand, simply because of its size. Their device of choice, however – the cell phone – may prove to be a more difficult technology for hoteliers to accommodate than Baby Boomers' and Gen X's preferences for TV, PCs and portable devices.

¹⁸⁴ "49MM Wealthy Gen Xers in the U.S. Market," *CardFlash*, Jun. 8, 2005.

¹⁸⁵ "Travel World Tries Catering to Gen X Splurgers," *USA Today*, Feb. 9, 2005.

¹⁸⁶ "Marriott Unveils New Generation Guest Rooms," May 7, 2005, available at <http://successfulmtgs.com>.

B. One Device Will Not Fit All

Just as no one segment will dominate the hospitality market, neither will any one device. In an April 2005 article in TechWeb's publication, *Mobile Pipeline*, columnist Lee Hamrick speculated about the typical day of a business traveler in the year 2010.¹⁸⁷ In Hamrick's example, the guest used no less than three devices and four technologies – all situation-specific – that offered him a chance to access and interact with content wherever it was needed, with no down time. The guest's choice of restaurant, meal, and messaging preferences were recorded and awaiting his arrival and his room was flexible enough to accommodate his changing communication needs. Without any hassle, he was able to connect his own devices to docking stations and plasma screens that allowed him to stay in touch and enjoy a dynamic experience with his colleagues. His personal interactions were personalized – by way of his in-room plasma screen – and served up at his convenience. Check-in and check-out were seamless. Technology did not in any way diminish the level of service that the hotel provided – the differences were invisible to him – but it provided access, mobility and personalization.

More and more articles like Hamrick's are appearing in the trade press than ever before, fantasizing about what hi-tech wonders the guest room of the future holds.¹⁸⁸ Hoteliers are caught in a frenzy to build the most technologically-sophisticated surrounding for their guests. But the in-room technology race is not about complex functionalities or revolutionary devices. In Hamrick's example, the unifying feature of tomorrow's in-room technology devices is that they provide convenient access to content – content that is either relevant to the guest's stay, specific

¹⁸⁷ Lee Hamrick, "Business Travel 2010: A Day In The Live," *Mobile Pipeline*, Apr. 19, 2005, available at <http://www.mobilepipeline.com/shared/article/printablePipelineArticle.jhtml?articleId=160902652>.

¹⁸⁸ See Kitty Bean Yancey, "Check into the 'Hotel of Tomorrow'," *USA Today*, May 6, 2005, available at <http://www.keepmedia.com/pubs/USATODAY/2005/05/06/843497?extID=10032&oliID=213> and Michael S. Lasky, "A Night in the Hotel of the Future," *PCWorld.com*, Jun. 06, 2003, available at <http://www.pcworld.com/news/article/0,aid,111042,tfg,tfg,00,asp>.

to the guest's preferences, or offered in a way that allows the guest to customize it. Hotels must not think of these devices as standalone, but rather as technologies that must be woven together into seamless guest experience. And the plug-and-play capabilities of portable devices in the home must be replicated in the guest room if travelers are to think of it as their home away from home. That, hoteliers, is the Holy Grail.

V. Insight Five: Loyalty Is Lost

In-room technology is an important subject for hoteliers because it is viewed as a way to increase customer loyalty. Certainly, the notion of customer loyalty is not new to the hospitality industry. In fact, the industry was one of the early adopters of loyalty and rewards programs. The first rewards program, Priority Club Rewards, was launched by Holiday Inn (now part of InterContinental Hotel Group) in 1983.¹⁸⁹ Today, nearly every hotel chain has one, representing millions of travelers in the U.S. InterContinental's program alone has grown to include 21 million members.¹⁹⁰

But as hoteliers also know, those numbers are not always instructive measures of customer loyalty. A recent study conducted by Accenture suggests that although loyalty programs drive travel decision-making overall, they play a lesser role in hotel decision-making.¹⁹¹ A similar survey from JD Powers and Associates in 2001 found that only 30 percent of travelers select a hotel because of its loyalty program.¹⁹² Loyalty program membership is decreasing, and last year travelers converted almost one-third of points earned from hotel stays

¹⁸⁹ "With 21 Million+ Members, Priority Club® Rewards Becomes World's Largest Hotel Loyalty Program," *HospitalityNet.org*, Jul. 26, 2004, available at <http://www.hospitalitynet.org/news/4020141.print>.

¹⁹⁰ *Id.*

¹⁹¹ See "Transatlantic Business Travel Expected to Rise Sharply," Accenture Consulting, Oct. 2004.

¹⁹² "Hotel Loyalty Programs Seen Having Minimal Impact," *Hospitality Net.org*, Sep. 6, 2001, available at <http://www.hospitalitynet.org/news/4009077.print>.

into airline trips.¹⁹³ In response, hoteliers actively seek ways to make their loyalty programs more attractive – adopting more liberal redemption strategies, for example – as well as ways to make their property more attractive to the guest.

Technology in the guest room has always played a formidable role in building and sustaining guest relationships. The hotel has a history of being a place where guests came to experience new devices – such as air conditioning, color television, and cable TV. Guests have been surveyed, tracked, and quoted and their responses indicate that in-room technology is a major factor in hotel selection.¹⁹⁴ As a result, hoteliers feel the pressure to keep pace with the technology standards that their guests take for granted in their homes, offices, and other environments.

Hoteliers are already busy building accommodations for the guest of the future – installing or upgrading devices comparable to the home and office. Many offer televisions that support HDTV (although not necessarily the content) and an additional device – VCR or DVD – that allows for time-shifted programming. Others have invested in gaming, installing video consoles like Xbox and PlayStation. And almost as many hotels offer broadband services as offer room service.

But establishing a relationship with the guest of the future extends beyond the installation of technology and hardware. It requires an understanding of what drives their technology buying decisions, and what their loyalty thresholds are. The three different generations are shifting their loyalties – and all for different reasons.

¹⁹³ Michael T. Capizzi and Rick Ferguson, “Loyalty Trends for the 21st Century,” *Colloquy*, Jun. 2005 and Barbara De Lollis, “More hotel guests use reward points,” *USA Today*, Sep. 27, 2004.

¹⁹⁴ See Rachel Brown, “Home work: hotels use technology to draw business travel,” *Los Angeles Business Journal*, Mar. 7, 2005, available at http://www.findarticles.com/p/articles/mi_m5072/is_10_27/ai_n13477263; Jerry Tarasofsky, “The Wired Hotel: Building Loyalty Into Your Site,” *Hotel Business Review*, 2005, available at http://www.hotelexecutive.com/bus_rev/library.asp?cat=27; and Diane Stresing, “21st Century Hospitality,” *Laptop*, Jun. 2004, available at <http://www.techworthy.com/Laptop/June2004/21st-Century-Hospitality.htm>.

A. Not So Loyal Anymore

Baby Boomers are known for their strong sense of loyalty – a trait instilled in them by their parents. Having persevered through two World Wars and the Depression, their parents were frugal, hardened, and grateful for work – repaying employers with lifelong loyalty. Over the last three decades, that same work ethic, loyalty, and honesty has been evident in the Baby Boomer generation as well.

But there are signs that Baby Boomers' loyalty, so easy to take for granted, has dissipated. A 2002 AARP study found that consumers aged 45 and older switch brands just as readily as do younger consumers.¹⁹⁵ Brent Green, author of *Marketing to Leading-Edge Baby Boomers*, notes, "Boomers have shown no greater brand loyalty than any other generation. They're willing to try new products."¹⁹⁶ As they age and begin looking for new experiences, expect Boomers to start traveling differently, and spending their money differently.

B. The "P" in X and Y

Neither Generation X nor Y will ever be praised for their brand loyalty. Both groups are impulsive and willing to explore diverse alternatives. But that is where their loyalty patterns diverge and it is important to distinguish between the differences.

Generation X's lack of loyalty is a result of their independence. They did not just become independent overnight either. They were witness to many phenomena that have shaped their attitudes, including unemployment, divorce, and recession. As a result, they are guarded and skeptical, and their experiences have fostered an "everyone for themselves" mentality. This has driven their relationships with everyone including sellers. As Brandchannel.com notes, "[their]

¹⁹⁵ Kristin Davis, "Oldies but goodies; Marketers, take note: Baby boomers have lots of money to spend," *U.S. News & World Report*, Mar. 14, 2005, available at <http://www.usnews.com/usnews/biztech/articles/050314/14boomer.htm>.

¹⁹⁶ "Marketing's Boomer Revolution?," *BusinessWeek* Jan. 5, 2005, available at http://www.businessweek.com/bwdaily/dnflash/jan2005/nf2005015_6056_db061.htm.

discriminating pattern often discourages brand loyalty, keeping brand managers and advertisers on their toes.”¹⁹⁷

Generation Y’s lack of loyalty is a result of the overwhelming amount of information they have at their fingertips – and the devices that allow them to access it. They have been raised in a world that offers hundreds of cable channels, thousands of music files, and endless online and offline content mediums. They have better access to information and the latest trends than any generation before them via the Internet and their cell phones. With so many options to choose from, this segment has no problem switching brands.¹⁹⁸

C. Loyalty Lost... and Found

Hoteliers face a daunting task: How to create loyalty among an increasingly non-loyal audience. Hoteliers cannot count on Baby Boomers to stick with them just because they always have and Generations X and Y have given no indication that they understand the meaning of the word.

Despite their indifference towards hospitality brands, all generations are loyal to their preferences for technology. Perhaps it is time to approach the loyalty conundrum differently. To build a loyal following of guests tomorrow, hoteliers will need a strong loyalty proposition today.

Important clues about how to frame such a proposition can be gathered by understanding guests’ behaviors and technology preferences. Take Generations X and Y for instance. The optimal in-room technology would provide an experience that recognizes their strong desire for

¹⁹⁷ Vivian Manning-Schaffel, “Has Gen X fallen through the cracks?,” *Brandchannel.com*, Dec. 16, 2002, available at http://www.brandchannel.com/start1.asp?fa_id=136.

¹⁹⁸ Dr. Pete Markiewicz, “See Who’s filling Gen-Y’s shoes?,” *Brandchannel.com*, May 5, 2003, available at <http://www.brandchannel.com/start1.asp?id=156>; Ashima Sharma, “The lure of generation Y,” *Euromonitor International*, Dec. 20, 2002, available at <http://www.euromonitor.com/article.asp?id=194>; and “Step forward generation Y,” *Financial Times*, Dec. 28, 1999.

individuality. To achieve their loyalty, the hotelier does not need to provide every device they indicate a preference for, but rather an environment that supports their desire to connect their own devices. Hoteliers might consider installing high-quality speakers that allow Generation Y to connect their iPods, listen to their playlists, and replicate the experience they have at home. Generation X, however, may have different in-room technology expectations. They may prefer to interact with their content using a different device – such as a portable gaming device – and wish to enhance their gaming experience with surround sound. Speakers that supported both devices would be a coup for hoteliers.

This idea of creating loyalty by allowing travelers to remain loyal to their content is not an immediately obvious one. But revisit some of the adoption trends that have been reviewed in this paper. When cable TV offered original content, it became popular; when the iPod made it possible for people to personalize their playlists, its sales soared; and, when mobile provider partnerships allowed young people to interact with their favorite TV programs, SMS took off. In the future, hoteliers can cultivate loyalty to their brands by enabling their guests to remain loyal to their content and the vehicles that deliver it.

VI. Outfitting the Guest Room of the Future

As hoteliers prepare their guest rooms for the future, we hope they will use the five insights presented in this paper as a framework for their planning and technology decision making.

1. ***Why People Travel Is Changing.*** In the future, reasons for why people travel will be different and therefore drive different decisions. More and more people are traveling

for leisure and more business travelers are traveling in groups, changing what they want in the guest room and what devices they carry.

2. ***Every Generation Uses Technology Differently.*** Generation X is only one of three important generations worth considering when making future decisions about in-room technology. Baby Boomers and Generation Y rival Generation X in size and have shown they have a preference for certain technologies and a willingness to spend on improving the experience.
3. ***Guests Care about Access and Content.*** The jury is out on what “device” – the TV, laptop, PDA or cell phone – will dominate over time. What finding will persist, however, is that each generation will want to be able to access and personalize the content that is relevant to them. Hoteliers should focus on the channels that deliver that content and the entire experience from start to finish, rather than the device itself.
4. ***Familiarity Breeds Disruption.*** There will always be another gadget waiting to disrupt the hotelier’s world. What hoteliers can count on is that content (or access to it) will drive adoption. If hoteliers want to “lead” the technology race – rather than lag it, then they need to provide the content, and access to it, that compels their guests.
5. ***Loyalty Is Lost.*** Amidst the technology advances, it will be harder and harder for hoteliers to rest on old loyalty laurels. All segments are becoming increasingly less and less loyal, although the reasons for the lack of loyalty differ by generation. The trick for hoteliers is to weave their loyalty appeals into their guests’ loyalty to their devices.

No one knows what the future holds for technology. To avoid getting lost in the hype, hoteliers should remember that the guest of the future will not favor any one device and that a

“loyal” guest will not fall into any one category. They will be young and old, technology-savvy and technology-simple, and above all else they will look to the hotelier to provide them with access to their content and the ability to personalize that experience.