Trends in media use by children and young people
Insights from the Kaiser Family Foundation’s Generation M2 2009 (USA), and results from the ACMA’s Media and communications in Australian families 2007

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Summary

Having an up-to-date understanding of young people’s media use assists the Australian Communications and Media Authority (ACMA) with a number of its activities, including the development and management of the Cybersmart national cybersafety education program, provision of educational material promoting the safe use of mobile phones, and informing the Children’s Television Standards.

In 2007, the ACMA commissioned Media and communications in Australian families 2007 (MCAF 2007), a research project looking at children and young people’s use of electronic media and communications. This report provides an important evidence base about young Australians’ use of media and includes comparisons with the 1995 study Families and Electronic Media, when the media environment for children was very different.

In the United States of America, the Kaiser Family Foundation (Kaiser) has produced one of the largest and most comprehensive publicly available sources of information about media use among eight to 18-year-olds in the United States. In January 2010, Kaiser published Generation M2—Media in the Lives of 8- to 18-Year-Olds (Generation M2), the report from the third wave of research Kaiser has undertaken on media use by American children and young people. This report provides a detailed look at current media use patterns among American youth, and documents changes since the first two waves of the study, in 1999 and 2004. The major finding is that the amount of time young Americans spend with media has increased dramatically between 2004 and 2009, largely due to greater access to and use of mobile and online media, as well as media multi-tasking behaviour.

This paper highlights significant findings from the Generation M2 research, identifying changes and emerging trends in media use and consumption by American youth. Results from MCAF 2007 and findings from the latest Children’s Participation in Cultural and Leisure Activities (CPCLA) survey (Australian Bureau of Statistics, 2009) are also included. While findings from Generation M2 cannot be generalised to the Australian context, given the pace of change and continuing technology developments in the media industry, it is likely that media use and consumption habits among young Australians have altered since the MCAF 2007 research was conducted in 2007. The report draws on results from MCAF 2007 and the latest CPCLA survey in order to explore apparent differences between Australian and American youth and identify evidence of changes occurring in patterns of media use among Australian children and young people.

Key findings

Key findings discussed in this paper include:

Overall media use

> In 2009, young Americans aged eight to 18 years spent an average seven hours and 38 minutes consuming media in a typical day—an extra one hour and 17 minutes with media per day since 2004. The research shows that this increase can be largely attributed to widespread adoption and use of new mobile and online devices, in particular media-enabled mobile phones and MP3 devices such as the iPod.
Between 2004 and 2009, eight to 18-year-olds owning a mobile phone increased from 39 per cent to 66 per cent and from 18 per cent to 76 per cent for iPods and MP3 players.

In 2009, 20 per cent of all media consumption among American youth occurred on mobile devices—mobile phones, iPods or handheld video game players.

Generation M2 found strong demographic differences in media use levels.

African-American and Hispanic youth consumed considerably more media than ‘Other’ American young people—an average of over nine hours of media per day for African-American and Hispanic youth in 2009, compared with an average six hours and 22 minutes of media per day for ‘Other’ American youth.

Young Americans aged 11 to 14 years also reported notably high levels of media use in 2009 (an average eight hours and 40 minutes media use per day).

While the Generation M2 and MCAF 2007 studies cannot be directly compared because of methodological and other differences, it is apparent that American youth consume more media content across all platforms than their Australian counterparts—an average seven hours and 38 minutes per day of media for young Americans in 2009, more than the seven hours and two minutes of discretionary time available to Australian young people, who spent a total of four hours and 49 minutes per day consuming media in 2007.

In 2007, the MCAF 2007 study found that young Australian’s were maintaining their relationship with traditional media such as broadcast television, while at the same time embracing new media platforms including the internet, mobile phones, and personal mobile devices. Three years later, in 2010, developments in the Australian media environment, including digital television switchover and adoption of media-enabled smart phones, are providing Australian youth with even more opportunities to access more media content.

Future Australian studies should continue to monitor the relationship between increased access to technologies and levels of media use by young Australians.

Watching television content

While television viewing remained the dominant and most time-consuming media activity for American youth in 2009, new media platforms had transformed the way they watched television.1

Between 2004 and 2009, time spent watching regularly scheduled programming on a television set at the time it is originally broadcast declined by 25 minutes per day. However, viewing on new media platforms actually led to an increase of 38 minutes in total consumption per day of television content (from a total of three hours and 51 minutes per day for eight to 18-year-olds in 2004, up to four hours and 29 minutes in 2009).

Young Americans spent 59 per cent (or two hours and 39 minutes) of their total daily viewing time watching live television on a television set, and 41 per cent (or one hour and fifty minutes) consuming television content in other ways—on demand/recorded content, online, on DVDs, or via mobile devices including mobile phones and iPods.

Compared with American youth in 2009, Australian children and young people in 2007 spent a much greater proportion of total viewing time consuming content via traditional broadcast television (approximately 78 per cent of viewing was through live television for Australian eight to 17-year-olds). Australian youth spent a total of two

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1 In the Kaiser study television viewing included live television, time-shifted television, DVDs viewed on a TV set or computer, and TV shows and movies viewed on a mobile phone, MP3 player or online.
hours and 26 minutes consuming television, DVDs and downloaded audio-visual content.2

There was evidence that young Australians were starting to access content across new platforms in 2007. Eighteen per cent of eight to 17-year-olds reported watching video content on the internet for an average seven minutes per day. This increased to almost a third of 15 to 17-year-olds watching video content online for an average 14 minutes per day.

Mobile phone use

In 2009, mobile phones were a multimedia device for young Americans. On a typical day, eight to 18-year-olds reported spending an average 49 minutes either listening to music (17 minutes), playing games (17 minutes), or watching television content (15 minutes) on a mobile phone.

Results from MCAF 2007 and Generation M2 show that both Australian and American teens spend considerably more time texting than talking on their mobile phones. In 2007, Australian 12 to 14-year-olds and 15 to 17-year-olds allocated 71 per cent of the total time spent on mobile communications to texting, with the remaining 29 per cent spent on voice calls. In 2009, American teens also divided their mobile communications time 70/30, with around 70 per cent spent texting, and 30 per cent spent talking.

While levels of mobile phone ownership among high-school-aged children appear similar in both Australia and America (75 per cent of Australian 12 to 14-year-olds and 90 per cent of Australian 15 to 17-year-olds owned a mobile in 2007, compared with 69 per cent of American 11 to 14-year-olds and 85 per cent of 15 to 18-year-olds with a mobile in 2009), American children are more likely to acquire a mobile phone earlier than Australian children. Thirty-one per cent of American eight to 10-year-olds had a mobile in 2009 (Generation M2), compared with 18 per cent of Australian eight to 11-year-olds in 2007 (MCAF 2007), and 23 per cent of Australian children aged nine to 11 years with a mobile in 2009 (CPCLA).

Listening to music

Time spent listening to music by American eight to 18-year-olds increased from an average one hour and 44 minutes per day in 2004 to an average two hours and 19 minutes per day in 2009—largely due to new platforms and devices that enable young people to spend more time with music, such as the iPod and other MP3 players, mobile phones, and laptop computers (for listening through programs such as iTunes and to internet radio).

MCAF 2007 also found that the proliferation of MP3 players drove an increase in time spent by Australian youth listening to recorded music.

Playing video and computer games

In 2009, young Americans spent an average one hour and 13 minutes per day playing video games, up an average of 24 minutes per day from 2004. The vast majority of that increase—20 minutes—was through mobile gaming devices.

A major finding from MCAF 2007 was that there was a significant increase in the popularity of electronic gaming among Australian boys, largely due to online gaming against other players.

Australian children and young people were also playing games on handheld devices, with 14 per cent of eight to 17-year-olds reporting they had played games on a mobile phone over three diary days, and 18 per cent saying they had played games on a hand-held device such as a PlayStation Portable (PSP) or Nintendo DS.

2 Time spent ‘... going to websites to watch or upload videos (such as YouTube or Google Video)’ was captured under Computer Use in the Kaiser study.
Computers and the internet

> Time spent using a computer by young Americans increased from an average one hour and two minutes per day in 2004 to one hour and 29 minutes in 2009—largely due to greater home access to computers and the internet, and the emergence of social networking and online video content.

> In 2009 the three most popular computer activities for American eight to 18-year-olds were going to social networking sites (an average 22 minutes per day among all 8 to 18-year-olds), playing computer games (an average 17 minutes per day), and watching video on sites such as YouTube (15 minutes per day).

> In 2007, young Australians spent the most time online using instant messaging services (23 per cent of internet time for 8 to 17-year-olds) followed by gaming online (19 per cent), homework (17 per cent), and then social networking (14 per cent). This usage profile is similar to that of American youth in 2009, with the importance of communications activities such as instant messaging and social networking, as well as the popularity of playing games, clearly apparent.

> More Australian family households had a home internet connection, or broadband/a fast internet connection in 2007, than American family households in 2009.

> MCAF 2007 found that the vast majority of Australian families had the internet at home (91 per cent), and three-quarters (76 per cent) had broadband. This compares with 84 per cent of American families with the internet in 2009, and 59 per cent with wireless or high-speed internet.

> MCAF 2007 also found that for Australian youth, online participation was the second most popular and time-intensive media activity behind television viewing, perhaps reflecting higher levels of internet and broadband access among Australian families. For American youth, the second most popular media activity was listening to music.

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3 Time spent using computers for school work was captured and analysed separately in the Kaiser study, as the primary focus was on recreational use of media. The research found that young Americans aged eight to 18 years spent an average 16 minutes per day using computers for school work in 2009.
Background

In order to explore trends and shifts in children’s media use this paper presents data from Generation M2, alongside the ACMA’s MCAF 2007. Results from the latest Children’s Participation in Cultural and Leisure Activities (CPCLA) survey (Australian Bureau of Statistics, 2009) are also included. The latter is the most recent nationally representative source of information covering use of the internet and mobile phones by Australian children aged five to 14 years. Selected results from UK children’s media literacy—the latest research report on this topic from Ofcom (the independent regulator and competition authority for the United Kingdom communications industries) covering findings from research conducted in 2009, are also discussed where relevant.

An overview for each of the four studies is presented in the boxes below.

It is important to note that these studies are not directly comparable for a range of reasons, including:
> differences in research methodology
> the age-range of young people included in the research
> timing of the research
> categorisation of types of media (e.g. Generation M2 focuses on time spent on types of media content across a range of platforms and devices—while MCAF 2007 focuses on time spent using specific media platforms and devices).

Throughout the remainder of this paper, time spent with media is reported in hours: minutes. For example, 12 minutes is reported as 0:12, and four hours and 29 minutes is reported as 4:29.

Media and Communications in Australian Families 2007 is an in-depth study of children’s use of electronic media and the way parents mediate that use. The research considered a range of children’s leisure activities and investigated how the internet, free-to-air and subscription television, radio, mobile phones and electronic games fit into the lives of Australian young people and families.

The report also includes comparisons with results from 1995 research reported in Families and Electronic Entertainment (FEE), which shows how the family media and communications environment has changed over 12 years.

The research involved:
> a representative telephone survey of parents from 751 family households across Australia (N=751 parents with young people aged 8 to 17 years), including an inventory of electronic media and communications equipment in these households (conducted 20 March to 12 May, 2007)
> three-day time-use diaries covering every day of the week completed by young people aged 8 to 17 years (N=751 one main child from each household; and N=1,003 total young people who completed a diary) during school term, and short questions on the use of communications technologies at the end of each of the three diary days (May to June, 2007)
> a short self-complete survey that was filled out by young people on the day after completing the three-day time-use diary (i.e. Day 4 diary questions, N=1,055).

The sample of 751 family households from across Australia gives a confidence interval of ±3.5 at p<0.05.
Children’s Participation in Cultural and Leisure Activities – 4901.0 – April 2009 is the fourth in a series of surveys conducted by the Australian Bureau of Statistics (ABS) on the topic of children’s participation in cultural and leisure activities in Australia. Previous surveys were conducted in April of 2000, 2003, and 2006. While the publication primarily provides information about the participation of children aged five to 14 years in cultural, sporting and other leisure activities, details on children’s use of the internet and mobile phones are also presented.

The survey was conducted throughout Australia over a two-week period in April 2009, as part of the ABS Monthly Population Survey. Information was collected from any responsible adult in the household who was asked to respond on behalf of the children in the household. In total, information was collected about the activities of 5,825 children living in the selected households.

Generation M2: Media in the Lives of 8- to 18-Year-Olds is the third in a series of large-scale, nationally representative surveys by the Kaiser Family Foundation about young people’s media use. It includes data from all three waves of the study (1999, 2004, and 2009), and is among the largest and most comprehensive publicly available sources of information about media use among United States youth.

The study focuses on recreational use of media including TV, movies, computers, video games, music/audio, and print. Time spent using a mobile phone for media consumption is counted as media use, but time spent talking or texting on the phone is not.

The research involved a survey conducted between 20 October 2008 and 7 May 2009 among a nationally representative sample of 2,002 3rd to 12th grade students ages eight to 18.

Respondents completed an anonymous, 40 minute, self-administered written questionnaire in the classroom. Questions about time spent using media refer to the time spent on the previous day. Each day of the week is evenly represented and estimates of ‘all children’ include those who spent no time with that particular medium, resulting in an estimate of a ‘typical day’s’ use. Students surveyed on Monday were asked about Friday, Saturday, or Sunday. In the questionnaire response categories for time spent with media were: no time, five minutes, 15 minutes, 30 minutes, 45 minutes, one hour, one and a half hours, and continuing on in half-hour increments (respondents were asked to write in the amount if it was above the final response category).

A self-selected sample of 702 respondents also completed seven-day media use diaries, which were used to calculate multitasking proportions only. No time-use data was collected in this diary.

The margin of sampling error for the full sample is ±3.9%, and higher for sub-groups.

2004 trends are from the Kaiser Family Foundation’s Generation M: Media in the lives of 8-18 Year-Olds study conducted October 14, 2003 to March 19, 2004 with 2,032 students ages 8-18. 1999 trends are from Kaiser’s Kids & Media @ the New Millennium study conducted November 10 1998 to April 20 1999, with 3,155 children ages two to 17 (note that data reported in Generation M2 are for eight to 18-year-olds only).

UK children’s media literacy is the latest research report on this topic from Ofcom—the independent regulator and competition authority for the United Kingdom communications industries.

The report was published on 26 March 2010 and provides an update to the Children’s Media Literacy Audits published by Ofcom in 2006 and 2008. The report is designed to give an accessible overview of media literacy among UK children and young people aged five to 15 years and their parents/carets, and is based on a quantitative survey that involved a total of N=2,131 in-home interviews with children aged five to 15 and their 2,131 parents/carers from April to May 2009 and from September to October 2009. It also includes some trend data on UK children’s media use, obtained from comparisons with the Young People’s Media Usage survey, conducted in 2007 and 2008, and the Media Literacy Audits conducted in 2005 and 2007.
Overall media use

Key findings from Generation M2
Mobile and online media drive huge increases in time spent using media by American youth

The key finding from Generation M2 was that the amount of time those in the United States aged eight to 18 years spend using media has increased significantly. Use of every type of media by young Americans increased over the 10 year period between 1999 and 2009, and time spent with media in a typical day, which had held relatively steady between 1999 and 2004 (an average 6:19 per day for eight to 18-year-olds, to an average 6:21), increased by more than an hour in 2009 (up to 7:38).

Total media exposure—or total time spent using media including multi-tasking—also increased substantially from an average 8:33 per day for eight to 18-year-olds in 2004, up to an average 10:45 in 2009.

Figure 1 shows the average time spent using media per day by American youth in 1999, 2004 and 2009.
Figure 1: Generation M2—Media use over time; among all eight to 18-year-olds average amount of
time spent with each medium per day in 2009, 2004 and 1999

TV content: includes ‘live TV’, ‘time-shifted TV’, DVDs viewed on a TV set or a computer, and TV or movies viewed on a mobile phone, MP3 player, or online.
Music/audio: includes time spent listening to music on radios, CDs, mobile phones, iPods and other MP3 devices, and on a computer, such as through iTunes or internet radio.
Computers: time spent using a computer includes both online and offline activities. It includes time spent using the computer for entertainment purposes, such as playing games, sending or receiving instant messages, doing graphics, going to social networking sites, reading magazines or newspapers online, watching or posting videos on sites like YouTube, or surfing other websites. It does not include time spent using the computer for school work, or time spent using the computer for watching DVDs, TV or listening to music.
Video games: includes time spent playing on either a console or handheld gaming device (including a mobile phone). Does not include time spent playing computer games.
Total media exposure: refers to the amount of media content young people consume in a day—obtained by adding up the amount of time spent watching TV content, listening to music, using the computer, and playing video games.
Total media use: takes into account ‘multi-tasking’, and is calculated by reducing media exposure by the proportion of time during which such media-multitasking occurs.
Note: Time spent texting or talking on a mobile phone is not counted as time spent using media in the Generation M2 study.

More devices equals more media

Generation M2 found that these increases in media consumption among American youth can be largely attributed to widespread adoption and use of new mobile and online devices, in particular media-enabled mobile phones and MP3 devices such as the iPod.

While previously the advent of media multi-tasking allowed American youth to fit more media into the same number of hours per day, widespread adoption of mobile media in 2009 allowed young people to find even more opportunities throughout the day for consuming media. In 2009, 20 per cent of all media consumption among American youth occurred on mobile devices—mobile phones, iPods or handheld video game players.

The research shows that in particular, ownership of mobile phones and MP3 players among eight to 18-year-olds increased substantially between 2004 and 2009 (see Figure 2).
Demographic differences in media use

It is important to note that underlying the finding of increased levels of media use among young Americans; there were some significant demographic differences in media use. Generation M2 found that two groups of young people in particular stood out for their high levels of media consumption in 2009: 11 to 14-year-olds, and African-American and Hispanic youth.4

The research found that Hispanic and African-American youth were exposed to more media daily than ‘Other’ youth, even after controlling for other demographic factors (an average of around 13 hours per day of media exposure for African-American and Hispanic youth, compared with 8:36 for ‘Other’ youth, in 2009—as see Figure 3).

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4 The sample for the Generation M2 research included an oversample of African-American and Hispanic students however the survey data was weighted to ensure a nationally representative sample of students. Unweighted the sample comprised 21 per cent Hispanic, 16 per cent African-American, and 62 per cent ‘Other’ students. Weighted the sample comprised 19 per cent Hispanic, 15 per cent African-American, and 65 per cent ‘Other’ students.
The biggest ethnicity-related differences occurred for time spent watching television content, listening to music and gaming. For example, African-American youth reported spending an average of nearly six hours a day (5:54) watching television content across all platforms, compared with three and a half hours a day (3:36) for ‘Other’ youth. Hispanic youth also spent substantially more time watching television content than ‘Other’ youth (an average 5:21 per day for Hispanic youth).

The other group of young people reporting notably high levels of media use in 2009 were ‘tweens’ or young Americans aged 11 to 14 years. Generation M2 found that media use increased substantially when young people reached the 11 to 14-years-old age bracket, from an average 5:29 per day total media use for eight to 10-year-olds, up to 8:40 per day total media use for 11 to 14-year-olds, and then declining to an average 7:58 per day for 15 to 18-year-olds.

The biggest increases were in time spent watching television content and playing video games. In 2009, American tweens consumed an average 5:03 per day of television and movie content, and spent 1:25 playing video games (see Figure 4).

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**Figure 3: Generation M2—Media use by race/ethnicity; average amount of time spent with each medium per day (2009)**

<table>
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<th>Medium</th>
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<tr>
<td>Music</td>
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<tr>
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<td>1:25</td>
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<tr>
<td>Video games</td>
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<td>1:35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
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</tbody>
</table>

- Other: 9:44
- African American: 13:00
- Hispanic: 12.59

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**Table:**

<table>
<thead>
<tr>
<th>Time</th>
<th>TV content</th>
<th>Music</th>
<th>Computers</th>
<th>Video games</th>
<th>Total media exposure</th>
<th>Total media use</th>
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<tbody>
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<td>1:17</td>
<td>0.56</td>
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</tr>
<tr>
<td>Hours</td>
<td>5:54</td>
<td>2:42</td>
<td>2:52</td>
<td>1:24</td>
<td>6.22</td>
<td>9.44</td>
</tr>
</tbody>
</table>

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**Graph:**

- TV content: Other 3:36, African American 5:54, Hispanic 5:21
- Music: Other 1:48, African American 2:42, Hispanic 2:52
- Computers: Other 1:17, African American 1:24, Hispanic 1:49
- Video games: Other 0.56, African American 1:25, Hispanic 1:35
- Total media exposure: Other 12.59, African American 13.00, Hispanic 12.59
- Total media use: Other 9:44, African American 13:00, Hispanic 12.59
Comparative analysis

What does the evidence say about how mobile and online media have impacted on levels of media use by Australian youth?

The longitudinal nature of the Kaiser study permits the analysis of changes in media use by young Americans between 1999, 2004 and 2009. Key differences in research methodologies between MCAF 2007 and the FEE research undertaken in 1995 mean that changes in overall time spent with media by Australian children and young people over this 12 year period can only be quantified to a limited extent. Just as significant is the fact that use of the internet and mobile phones as media platforms for Australian youth was hardly on the radar fifteen years ago. In 1995 subscription television had just been introduced in Australia and less than 10 per cent of homes had a modem.

By 2007, the media and communications environment for Australian families had changed radically, and the emergence of the internet and mobile phones as very available and popular activities for young Australians is clear—the MCAF 2007 study found that in 2007, eight to 17-year-olds spent eight per cent of their aggregate discretionary time using the internet, and three per cent of aggregate discretionary time using a mobile phone. These activities were not measured or reported in 1995.

Results from the latest CPCLA survey (2009) have also highlighted the growing importance and ubiquity of the internet for Australian children. This research was able to quantify the increase in the proportion of children going online between 2003 and 2009. Seventy-nine per cent of five to 14-year-olds accessed the internet in 2009, up from 65 per cent in 2006, and 64 per cent in 2003.

Australian children and young people’s television viewing, mobile phone use, listening to music, playing video and computer games, and use of computers and the internet is covered in greater detail in the following chapters dealing with these topics.

How do we explain the substantial differences in levels of media use between American and Australian youth?

Overall the results from Generation M2 indicate that American children and young people in 2009 were spending substantially more time per day with all media, than Australian youth were in 2007 (an average 7:38 of total media use per day for American eight to 18-year-olds in 2009, compared with an average 4:25 of total media use per day for
The results from Generation M2 clearly identify a trend towards increased media use by American children and young people over time, to the point where in 2009 American eight to 18-year-olds spend as much time per day with media as they do at school. This could lead to speculation about whether media use by Australian youth may also have increased to comparable levels. However, it is difficult to imagine that media use by young Australians could have increased to such a great extent between 2007 and today, given total discretionary time of an average seven hours and two minutes per day, comprising media and non-media activities, was less than media time for American youth.

There are other factors which may explain the quantum of the difference in media use levels between Australian and American youth:

- Differences in research methodologies: Generation M2 involved children in a classroom setting recalling the time they had spent with media on the previous day, so that potentially inaccurate recall and/or social desirability bias may have resulted in some over-estimates of time spent using media. This possibility is supported when the data on time spent watching television from Generation M2 are compared with that reported in Nielsen’s *Three Screen Report: 4th Quarter 2009*. Nielsen reported that in Q4 2009 American children aged 12 to 17 years spent an average 23:24 watching traditional television per week, 1:15 watching time-shifted TV, and 0:15 watching TV content online. This equates to an average 24:54 per week or 3:33 per day spent watching TV content by 12 to 17-year-olds in Q4 2009—roughly around an hour less per day than was reported in Generation M2 (an average 5:03 per day for 11 to 14-year-olds and 4:22 for 15 to 18-year-olds). Data on time spent watching television by Australian eight to 17-year-olds in MCAF 2007 (an average 1:54 per day for all eight to 17-year-olds) are close to the television audience data supplied by OzTAM for 2006 (an average 86 minutes per day spent watching free-to-air television by both Australian five to 12s and 13 to 17-year-olds in 2006, plus 30 minutes per day spent watching subscription television by five to 12s, and 33 minutes subscription television for 13 to 17-year-olds—equating to an average 1:56 per day spent watching television by five to 12s, and an average 1:59 for 13 to 17-year-olds). OzTAM is the official source of television ratings information in Australia.

- Climate differences: The Generation M2 survey was conducted between October 2008 and May 2009, spanning the end of the North American fall, all of the winter season, and the beginning of spring. The MCAF 2007 fieldwork also took place over the Australian autumn and winter—however, more extreme winter conditions in the USA may result in American children spending relatively more time indoors and with media, than Australian children.

- Cultural and ethnicity-related differences: Generation M2 found strong ethnicity-related differences in time spent with media, with African-American and Hispanic youth spending much more time with media per day than ‘Other’ American youth (around four hours more per day). Comparing levels of media use by ‘Other’ American youth (an average 6:22 hour with Australian youth (an average 4:25 hours in 2007) the difference—while not as pronounced—is still substantial.

- Differences in levels of access to media technology: In 2009, American youth were more likely to have their own mobile phone, iPod, and/or handheld gaming device than their Australian counterparts in 2007, and they spent more time using these devices. In particular it seems that American children are more likely to acquire these technologies at a younger age than Australian children. On the other hand, the research also shows that while Australian families had greater access to computers, the internet, and broadband in 2007 than American families in 2009, American eight to 18-year-olds spend more time using computers/online. Future studies should
continue to monitor the relationship between increased access to technologies and levels of media use by Australian children and young people.

The remainder of this paper will explore in more detail trends in television watching, use of mobile phones, listening to music, electronic gaming, and computer and internet activities, among American and Australian young people.
Watching television content

Key findings from Generation M2

New media platforms transform the way young Americans watch television

The Generation M2 study found that while television viewing remained the dominant and most time-intensive media activity for American youth aged eight to 18 years in 2009, the proliferation of new media platforms had transformed the way children watched television.

Between 2004 and 2009, time spent watching regularly scheduled programming on a television at the time originally broadcast declined by 25 minutes per day. However, television viewing on new media platforms actually led to an increase of 38 minutes in total television consumption per day (from a total 3:51 per day for eight to 18-year-olds in 2004, to 4:29 in 2009).

In 2009, time spent viewing television content by young Americans included:
> an average 24 minutes a day watching TV or movies on the internet
> 15 minutes watching on a mobile phone
> 16 minutes watching on an iPod or similar device.

Figure 5 shows the proportion of television content consumed in 2009 by American youth in a typical day, by media platform. In the Kaiser study, television viewing included live television, time-shifted television, DVDs viewed on a TV set or computer, and TV shows and movies viewed on a mobile phone, MP3 player or online. Other audio-visual content consumed online through websites such as YouTube or Google Video was captured under computer use.
In 2009, young Americans spent 59 per cent of total television viewing time (or 2:39) watching live television on a television set, and 41 per cent (or 1:50) consuming television content in other ways (on demand/recorded content, online, on DVDs, or through mobile devices including mobile phones and iPods).

Demographic differences

American tweens (11 to 14-year-olds) consumed more television content than both younger children (eight to 10-year-olds) and older teenagers (15 to 18-year-olds) in the sample. The difference was mainly in the amount of time spent consuming live TV, and DVDs (an average three hours per day spent watching live TV and 31 minutes watching DVDs through a television set by 11 to 14-year-olds, compared with 2:26 watching TV and 21 minutes watching DVDs for eight to 10-year-olds, and 2:25 watching TV and 24 minutes watching DVDs for 15 to 18-year-olds).

Both African-American and Hispanic youth spent significantly more time watching television content than ‘Other’ American youth. Ethnicity-related differences were evident across most platforms, but in particular African-American and Hispanic youth spent more than twice as much time viewing TV content on new platforms than ‘Other’ American youth (an average 1:20 per day spent consuming TV content on the internet or through a mobile phone or iPod by African-American youth, and 1:18 for Hispanic youth, compared with 34 minutes for ‘Other’ youth).

There were no gender differences for time spent watching television content.
Comparative analysis
Young Australians starting to access TV content across new platforms in 2007

MCAF 2007 also found that watching television remained the dominant and most time-consuming media activity for children and young people in Australia.

In 2007, time spent watching free-to-air and subscription broadcast television by Australian youth declined by an average 10 minutes per day—down from an average 2:04 per day for eight to 17-year-olds in 1995, to an average 1:54 per day. However, this decrease was directly offset by a 10 minute increase in time spent watching DVDs or videos, which rose from an average 14 minutes per day for eight to 17-year-olds in 1995, to 24 minutes per day in 2007.

There was also evidence that young Australians were starting to access television and other audio-visual content across new platforms. Eighteen per cent of eight to 17-year-olds reported watching video content on the internet for an average seven minutes per day (Table 1). This increased to almost a third of 15 to 17-year-olds (32 per cent) watching video content for an average 14 minutes per day.

Table 1 MCAF 2007—Participation and time spent watching/listening to music/clips etc on the internet, by age (2007)

<table>
<thead>
<tr>
<th>Age</th>
<th>8 to 17-year-olds</th>
<th>8 to 11-year-olds</th>
<th>12 to 14-year-olds</th>
<th>15 to 17-year-olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>18%</td>
<td>8%</td>
<td>21%</td>
<td>32%</td>
</tr>
<tr>
<td>Av. time per day</td>
<td>0:07</td>
<td>0:02</td>
<td>0:09</td>
<td>0:14</td>
</tr>
<tr>
<td>(h:mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Five per cent of eight to 17-year-olds also reported using an iPod/MP4 player to watch video content over three diary days, and three per cent reported watching video content on a mobile phone, reflecting the relatively low ownership of media-enabled mobile phones and portable music players in 2007.

Figure 6 shows the proportion of television content consumed by Australian eight to 17-year-olds per day by platform, in 2007.
Compared with young Americans in 2009, young Australians spent a much greater proportion of total TV viewing time consuming TV/audio visual content via traditional broadcast television (78 per cent of TV viewing was through Live TV for Australian eight to 17-year-olds in 2007, compared with 59 per cent of viewing through Live TV for American eight to 18-year-olds in 2009).

Young Australians were also much less likely to consume television content on mobile devices (one per cent of total TV was spent watching via mobile devices by Australian eight to 17-year-olds in 2007, compared with 12 per cent by American eight to 18-year-olds in 2009), online (five per cent for Australian youth, nine per cent for American youth), and on-demand (no data captured for Australian youth in MCAF 2007, eight per cent for American youth).

These results suggest that Australian youth may be adopting new ways to view television content at a slower rate than their American counterparts. However it is important to note that there are considerable differences between the American and Australian broadcasting environments.

For example, Americans are far more likely to have subscription television at home. Generation M2 found that in 2009, 84 per cent of American homes with children had cable or satellite television. In comparison, MCAF 2007 found that 32 per cent of Australian homes with children had subscription television. Additionally Generation M2 found that in 2009, just over half of family households (52 per cent) had a TiVo or other PVR. MCAF 2007 found that just 13 per cent of Australian family households had a hard-drive recorder in 2007, although penetration of these devices is likely to have increased.

These differences in the broadcast environments mean that American children are more accustomed to accessing television/audio visual content across a much more diverse variety of platforms and channels than their Australian counterparts. However, with digital switchover in Australia due to be completed by 2013, as well as the rollout of the NBN,
and the Government’s education policies involving the one laptop per high-school child initiative, the home media environment will continue to evolve in Australia, expanding the opportunities for young Australians to access content.

Findings from both MCAF 2007 and Generation M2 indicate that television content continues to be important for children and young people, and that young people will embrace new ways to access this content, alongside viewing traditional linear television.  

5 The trend towards accessing TV content across new platforms is also evident in the UK with the latest research findings from Ofcom showing that one in five (21 per cent of) UK children aged five to 15 years who use the internet at home, report ever having watched or downloaded television programs online in 2009 (up from 17 per cent of children aged five to 15 years accessing TV content online in 2008).
Mobile phone use

Key findings from Generation M2

Substantial increases in mobile phone ownership and usage

Substantial increases in mobile phone ownership and usage among American youth aged eight to 18 years was another key finding from Generation M2.

Ownership of mobile phones increased across all age groups between 2004 and 2009, but particularly among tweens and older teens—with 69 per cent of 11 to 14-year-olds and 85 per cent of 15 to 18-year-olds owning a mobile phone in 2009 (Figure 7).

The mobile phone as a multi-media device

The research also found that beyond traditional uses, mobile phones were becoming a multi-media device for American youth. In 2009, 56 per cent of eight to 18-year-olds reported spending time talking on a mobile phone in a typical day and just under half (46 per cent) reported sending text messages, closely followed by 43 per cent using their mobile to consume media.

On a typical day, eight to 18-year-olds reported spending an average 49 minutes either listening to music (17 minutes), playing games (17 minutes) or watching television content (15 minutes) on a mobile phone.

Among the older teens, where these activities were concentrated, the average for a typical day was more than an hour (1:06) of media consumption on the mobile phone for 15 to 18-year-olds, including 23 minutes for music, 22 minutes for games, and 22 minutes for television content.

Demographic differences

African-American and Hispanic youth spent much more time using their phones for music, games and videos, than ‘Other’ American youth (an average 1:28 for African-American youth, and 1:04 for Hispanic youth, compared with 26 minutes for ‘Other’ youth).
African-American youths also spent more time talking (an average 46 minutes per day for eight to 18-year-olds) and texting (an average 2:03 for 11 to 18-year-olds only), than Hispanic youth (an average 37 minutes talking, and 1:42 texting), and ‘Other’ youth (25 minutes talking, 1:22 texting).

Interestingly there were no gender differences for time spent consuming mobile phone media. However, American girls reported spending more time talking and texting on a mobile than boys (an average 38 minutes per day spent talking on a mobile phone by girls aged eight to 18 years, compared with an average 28 minutes for boys aged eight to 18 years; and an average 1:58 per day spent texting by girls (11 to 18-year-olds only), compared with an average 1:14 for boys (11 to 18-year-olds only).

Time spent using a mobile phone for talking, texting and consuming mobile media also increased substantially with age. Older teens (15 to 18-year-olds) spent an average 43 minutes in a typical day talking on a mobile, 1:51 texting, and 1:06 consuming mobile media (compared with 36 minutes talking, 1:13 texting, and 51 minutes consuming mobile media for 11 to 14-year-olds, and 10 minutes talking, and 20 minutes consuming mobile media for eight to 10-year-olds). There was no data collected on time spent texting by younger children.

**Comparative analysis**

**High levels of mobile phone ownership among Australian teens—but younger Australian children less likely to own a mobile than their American and British counterparts**

High levels of mobile phone ownership and use, particularly among older teens, was also a key finding from MCAF 2007. In 2007, 90 per cent of young Australians aged 15 to 17 years, and 75 per cent of 12 to 14-year-olds had a mobile phone (see Table 2).

| Table 2 MCAF 2007—Mobile phone ownership, by age (2007) |
|----------------|----------------|----------------|----------------|
| Age            | 8 to 17-year-olds | 8 to 11-year-olds | 12 to 14-year-olds | 15 to 17-year-olds |
| Mobile phone   | 54%              | 18%              | 75%              | 90%               |
| Mobile phone with advanced features | 16%             | 3%              | 20%              | 34%               |

While levels of mobile phone ownership among high-school aged children appear similar in both Australia and America, American children are more likely to acquire a mobile phone earlier than Australian children. Thirty-one per cent of American eight to 10-year-olds had a mobile in 2009 (Generation M2), compared with 18 per cent of Australian eight to 11-year-olds in 2007 (MCAF), and 23 per cent of Australian children aged nine to 11 years with a mobile in 2009 (CPCLA).

From Ofcom’s latest research, British children appear even more likely to acquire a mobile phone at a younger age, with 50 per cent of British eight to 11 year-olds having their own mobile phone in 2009. This research also found that mobile phone acquisition peaks at the age of 10 for UK children—two-in-three five to 15-year-olds with a mobile phone had acquired their first mobile by the time they were 10-years-old.

**Mobile phone penetration plateaus between 2007 and 2009**

Interestingly, both the Ofcom research and the latest CPCLA survey results from the ABS suggest that mobile phone penetration among Australian and UK children and young people has remained stable since 2007. The Ofcom research found that in 2009, nine per cent of UK children aged five to seven years, 50 per cent of eight to 11-year-olds,
and 88 per cent of 12 to 15-year-olds owned a mobile and this had not changed since 2007.

Comparing results from MCAF 2007 with the latest CPCLA survey also shows that the proportion of Australian 12 to 14-year-olds with a mobile did not change substantially between 2007 (75 per cent—MCAF 2007) and 2009 (76 per cent—CPCLA). The proportion of younger Australian children with a mobile has also remained relatively stable between 2007 (18 per cent of eight to 11-year-olds—MCAF 2007) and 2009 (23 per cent of nine to 11-year-olds—CPCLA).

From the CPCLA survey, two per cent of Australian five to eight-year-olds had a mobile in 2009.

**New mobile phone activities starting to emerge**

Consistent with the Generation M2 finding, MCAF 2007 also found that the two most common uses of the mobile phone for young Australians were sending or receiving text messages (35 per cent of all eight to 17-year-olds reported using SMS over three diary days) and making or receiving phone calls (34 per cent of eight to 17-year-olds).

However, use of a mobile phone for other media activities by young Australians was also starting to emerge in 2007. Over three diary days, 22 per cent of eight to 17-year-olds reported using a mobile phone to take photographs, 16 per cent played games, 10 per cent listened to music/radio, seven per cent recorded video footage, and three per cent reported using their mobile phone to watch TV shows/clips/videos.

Relative to the Generation M2 results, these are modest participation figures. However, it should also be noted that at the time of the MCAF 2007 study, only 16 per cent of eight to 17-year-olds had a mobile phone with advanced features (i.e. internet access, video content, mobile TV or an MP3 player). The findings from Generation M2 and recent changes in the mobile phone market in Australia, including the distribution and uptake of media-enabled phones such as the iPhone, suggest that in 2010 the mobile phone could be emerging as a true multi-media device for Australian youth.

To date, there is less evidence about the use of mobile phones by children and young people to access the internet. Generation M2 did not report on use of mobile phones to access the internet by American youth. In Australia, the latest CPCLA survey found that in 2009 four per cent of children aged five to 14-years-old had used their mobile phone to access the internet in the 12 months prior to interview. Similarly, the latest research from Ofcom found that six per cent of five to 15 year old UK children—rising to 14 per cent of 12 to 15-year-olds—had accessed the internet through their mobile phone in 2009.6

**Talk to text ratios similar for Australian and American youth**

Results from MCAF 2007 and Generation M2 show that both Australian and American teens spend considerably more time texting than talking on their mobile phones. Figure 8 shows that in 2007, Australian 12 to 14-year-olds and 15 to 17-year-olds allocated 71 per cent of total time spent on mobile communications to texting, with the remaining 29 per cent spent on voice calls.

In 2009, American 15 to 18-year-olds also divided their mobile communications time 70/30 with 72 per cent of communications time spent texting, and 28 per cent spent talking. American 11 to 14-year-olds allocated two-thirds of their mobile communications time to texting, and one-third to talking.

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6 The Ofcom research also found that 12 per cent of five to 15-year-olds had also accessed the internet from a games console in 2009.
Demographic differences

Consistent with findings from Generation M2, MCAF 2007 also found that girls and older teens were more intensive mobile phone users than boys and younger children.

Australian girls aged eight to 17 years spent significantly more time per day texting and talking on a mobile than boys (an average 14 minutes texting and seven minutes talking for girls, compared with an average nine minutes texting and four minutes talking for boys).

Average time spent using a mobile phone also increased with age. Eight to 11-year-olds used a mobile for an average three minutes per day, those aged 12 to 14 years for 19 minutes, and 15 to 17-year-olds for 43 minutes.
Listening to music

Key findings from Generation M2

MP3 players drive large increases in time spent listening to music

In 2009, listening to music remained the second most popular media activity for American youth, with time spent listening to music exceeded only by time spent watching television content.

Generation M2 found that in a typical day, eight to 18-year-olds spent an average 2:19 listening to music and another 12 minutes with other audio such as news or talk shows. This is 47 minutes more than was spent with music and other audio five years ago (for eight to 18-year-olds an average 2:31 per day with music and other audio in 2009, compared with 1:44 in 2004 and 1:48 in 1999).

This increase in time spent listening to music was largely due to new platforms and devices that enable young people to spend more time with music—such as the iPod and other MP3 players, mobile phones, and laptop computers (for listening through programs such as iTunes and to internet radio).

The impact of the MP3 player in particular, cannot be understated—in 2009 more than half of young Americans aged eight to 10 years (61 per cent), 80 per cent of 11 to 14-year-olds and 83 per cent of 15 to 18 years owned an MP3 player.

These players were the primary delivery system for music, accounting for 29 per cent of time spent listening to music by eight to 18-year-olds (see Figure 9). Listening to radio and via a computer each accounted for 23 per cent of time spent listening to music, while the mobile phone and CDs each accounted for 12 per cent.

Figure 9: Generation M2—Listening to music, by platform (2009); among all eight to 18-year-olds proportion of time spent listening to music on each platform:
Demographic differences
Time spent listening to music by American youth increased significantly with age, from an average 1:08 per day for eight to 10-year-olds, up to 2:22 for 11 to 14-year-olds, and 3:03 for 15 to 18-year-olds.

American girls spent more time listening to music on a typical day than boys (an average 2:33 for girls aged eight to 18 years, compared with 2:06 for boys), with the gender difference being in time spent listening on the traditional platforms only (i.e. via radio and CDs). There was no gender difference for time spent listening on iPods or other MP3 players, or through a computer or mobile phone.

Hispanic and African-American youth spent around an hour more per day listening to music than ‘Other’ youth across all platforms (an average 2:52 per day for Hispanic youth, 2:42 for African-American youth, and 1:48 for ‘Other’ youth).

Comparative Analysis
MP3 players drive increase in time spent listening to recorded music
In 2007, the MCAF 2007 research also found that time spent listening to recorded music by young Australians aged eight to 17 years had increased—from an average 13 minutes per day in 1995, to an average 21 minutes per day in 2007. Time spent listening to radio remained stable between 1995 (an average 15 minutes per day) and 2007 (an average 13 minutes per day).

Again the proliferation of MP3 players drove the increase in time spent listening to recorded music by young Australians. In 2007, 46 per cent of eight to 11-year-olds, 72 per cent of 12 to 14-year-olds, and 79 per cent of 15 to 17-year-olds owned an MP3 player.

The MCAF 2007 study did not capture time-use data on listening to music through a computer, as it was combined with video content and captured under use of computers and the internet. However, parents reported that 62 per cent of eight to 17-year-olds had ever listened to/downloaded music from the internet, and four per cent of these young people reported listening to radio via the internet over three diary days. Ten per cent of eight to 17-year-olds also reported listening to music through a mobile phone.

Demographic differences
As with American youth, music was particularly important for older Australian teens. Time spent listening to music and radio increased with age from an average 17 minutes per day for eight to 11-year-olds, up to 38 minutes for 12 to 14-year-olds, and 1:06 for 15 to 17-year-olds.

Girls and boys spent a similar amount of time listening to the radio (an average 14 minutes and 12 minutes per day respectively). However, girls spent significantly more time listening to recorded music than boys (26 minutes girls, 18 minutes boys).

While listening to music did not appear to be as prominent for Australian youth (eight to 17-year-olds spent more time watching television, using the internet and playing games than listening to music), as it is for American youth (where it is the second most time consuming media activity behind watching television content—regardless of age, gender and ethnicity), new platforms and devices that facilitate sharing and mobile access are nevertheless driving increased popularity of listening to music among young Australians.
Playing video and computer games

Key findings from Generation M2

More mobile and handheld devices equals more time spent gaming

The proliferation of mobile devices, including handheld video game players, mobile phones and MP3 players also impacted on young Americans engagement with video games. Generation M2 found that in 2009, eight to 18-year-olds spent an average 1:13 per day playing video games, up an average 24 minutes per day from 2004.

The vast majority of that increase—20 minutes—was through mobile gaming devices.

Between 2004 and 2009, both the percentage of young Americans participating in handheld gaming and the amount of time spent playing handheld games increased significantly (from 35 per cent of eight to 18-year-olds playing handheld games on a typical day in 2004, up to 47 per cent playing in 2009; and from an average 17 minutes spent playing handheld games per day by eight to 18-year-olds, to an average 38 minutes).

By contrast, there was no significant change in either the percentage of young Americans playing console games on a typical day (41 per cent in 2004, 39 per cent in 2009), or in the average amount of time spent playing console games (an average 32 minutes per day in 2004, 36 minutes in 2009). Similarly, time spent playing computer games also remained stable between 2004 (an average 19 minutes per day for eight to 18-year-olds) and 2009 (an average 17 minutes per day).

Figure 10 shows that in 2009 American youth spent around half their total gaming time on mobile platforms, with the other half on game consoles.

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7 In the Generation M2 study, time-use data on playing computer games (including online) was captured and reported under the computer and internet use category, rather than the video gaming category. This activity was the second-most time-intensive computer activity, behind social networking, for young Americans in 2009.
Figure 10: Generation M2—Video game playing by platform; among all eight to 18-year-olds proportion of video game time that is played on each platform (2009)

The other main factor contributing to the increase in time spent playing video games by young Americans, was that more reported playing video games in 2009—up from 52 per cent of eight to 18-year-olds playing games on a typical day in 2004, to 60 per cent playing in 2009. Additionally those eight to 18-year-olds who played video games reported playing for longer (up from an average 1:34 per day in 2004 for gamers, to 1:59 in 2009).

Demographic differences

Video gaming peaked among American tweens, with 11 to 14-year-olds spending the most time playing games (an average 1:25 per day in 2009 for 11 to 14-year-olds, compared with 1:01 for eight to 10-year-olds and 1:08 for 15 to 18-year-olds).

There was also evidence of age-related preferences in the games platforms used. Older teens (15 to 18-year-olds) and tweens (11 to 14-year-olds) spent more time playing games on a mobile phone than younger children (eight to 10-year-olds). Conversely, younger kids and tweens spent more time on handheld players than 15 to 18-year-olds.

Interestingly, there was no difference between boys and girls in the amount of time spent playing on either handheld platforms or mobile phones. However, boys spent significantly more time playing console games (an average 56 minutes per day) than girls (14 minutes), and among boys and girls who reported playing console games, boys spent a lot longer playing than girls (an average 1:47 for boys who played, compared to 0:55 for girl players).

Boys also spent significantly more time playing computer games (an average 25 minutes per day in 2009) than girls (an average eight minutes).

Across all platforms, Hispanic (1:35) and African-American youth (1:25) spent more time playing video games than ‘Other’ youth (0:56).
Comparative analysis

Australian boys embrace online gaming against other players

While Generation M2 looked at time spent playing video games on a console, handheld player and mobile phone (and computer games separately under computer and internet activities), MCAF 2007 collected time-use data about ‘online gaming against other players’, and an ‘all other gaming’ category incorporating console, handheld and mobile phone gaming, as well as time spent playing computer games not online, and arcade gaming.

The major finding from MCAF 2007 was that there was a significant increase in the popularity of electronic gaming among Australian boys, largely due to online gaming against other players. While time spent gaming by girls remained stable between 1995 (an average 22 minutes per day) and 2007 (an average 23 minutes), boys gaming increased by 83 per cent or 26 minutes per day—from an average 29 minutes per day for boys in 1995 to 55 minutes in 2007. The majority of this increase for boys—22 minutes—was through online gaming against other players.

In 2007, boys spent 40 per cent of their total gaming time playing games online. Girls also spent a significant proportion of their total gaming time playing online games against other players—35 per cent, or an average eight minutes per day.

Figure 11 shows average time spent per day playing video or computer games by boys and girls aged eight to 17 years in 2007.

Figure 11: MCAF 2007—Average time spent per day playing video or computer games, by gender (2007)

In 2007, Australian children and young people were also playing games on handheld devices. Fourteen per cent of eight to 17-year-olds reported playing games on a mobile phone over three diary days, and 18 per cent had played on a hand-held device such as a PSP or Nintendo DS (in comparison 44 per cent reported playing games on a computer, and 35 per cent had played on a games console). As found in Generation M2 there were no gender differences for playing games on a mobile phone or handheld player.
Age-related differences

As with the Generation M2 research, clear age-related trends in time spent gaming and in preferences for particular gaming devices, were evident.

MCAF 2007 found that eight to 11-year-olds spent more time playing video/computer games than older children and teens (an average 27 minutes per day for eight to 11-year-olds, compared with an average 24 minutes for 12 to 14-year-olds, and 19 minutes for 15 to 17-year-olds). Participation in gaming peaked at age 11, with 80 per cent of 11-year-olds reporting playing games over three diary days, and then declined after age 13 to around six in 10 14 to 17-year-olds participating in gaming.

Older teens spent more time playing online against other players (an average 23 minutes per day, or 55 per cent of total gaming time for 15 to 17-year-olds). Younger children aged eight to 14 years spent more time on other gaming activities than playing online.
Computers and the internet

Key findings from Generation M2

Online media important for young Americans

Generation M2 found that in addition to mobile media, online media were also increasingly important for young Americans, with time spent using a computer by eight to 18-year-olds increasing from an average 1:02 per day in 2004, to 1:29 in 2009.

This increase can be largely attributed to:
> the expansion of higher-speed home internet access
> the emergence of two new online activities that hold great appeal for young people—social networking, and viewing video content online.

Access to computers and the internet at home increases

The research found that in 2009 the vast majority of all eight to 18 year old Americans (93 per cent) had a computer at home. Around eight in 10 (84 per cent) also had home internet access, up from 74 per cent of family households in 2004, and 47 per cent in 1999. Access to high speed internet or wireless at home had also increased from 31 per cent of households in 2004, up to 59 per cent in 2009.

Access to computers and the internet at home in 2009, while relatively high across all groups, did vary across different demographic groups:
> computer ownership ranged from a low of 87 per cent (among children whose parents had no more than a high-school education) to a high of 97 per cent (among those who had a parent who had graduated from college)
> internet access varied by ethnicity and parent education, ranging from a low of 74 per cent among Hispanics or those whose parents had a high school education only, up to 91 per cent among those with a college-educated parent
> having high-speed/wireless access also varied with ethnicity and education. ‘Other’ American youth (61 per cent) were more likely than African-American (55 per cent) and Hispanic youth (51 per cent) to have high-speed access, as were children with college-educated parents (65 per cent, compared with 49 per cent of children whose parents had a high-school education only).

Despite these differences in access there were no disparities either by ethnicity or parent education in terms of the likelihood of a young American going online from school in a typical day. As a case in point, Hispanic youth actually spent more time using the computer for recreation in a typical day than ‘Other’ youth (an average 1:49 per day for Hispanics, 1:17 for ‘Other’ youth).

However, children whose parents had completed high-school or less were slightly less likely to go online from home in a typical day (52 per cent), than those whose parents had completed college (60 per cent).

Social networking and video sites drive increased participation online

In 2009, 64 per cent of young Americans reported using a computer for recreational purposes in a typical day, up substantially from 54 per cent in 2004 and 47 per cent in 1999.

The three most popular computer activities for American eight to 18-year-olds in 2009 were:
> going to social networking sites (an average 22 minutes per day among all eight to 18-year-olds)
> playing computer games (an average 17 minutes per day)
> watching videos on sites such as YouTube (15 minutes per day).

Two of these three top activities—using social networking services, and watching video content online—were hardly even present in 2004. Five years later in 2009, 40 per cent of American eight to 18-year-olds reported visiting social networking sites on a typical day, and those who did visit spent an average 54 minutes on these sites.

Figure 12 shows the proportion of recreational computer time American youth spent on various activities in 2009.

**Figure 12: Generation M2—Computer time, by activity; among all eight to 18-year-olds proportion of recreational computer time per day spent on various activities (2009)**

In addition to the time spent using a computer for surfing websites, social networking, uploading and sharing photos, and so on, young Americans aged eight to 18 years also averaged about an hour a day (1:03) using their computers to listen to music, watch TV, and play DVDs.

**Demographic differences**

Hispanic youth spent more time using the computer (an average 1:49 per day), than African-American youth (1:24) and ‘Other’ youth (1:17).

American tweens (an average 1:46) and older teens (1:39) spent more time using a computer in a typical day than younger children aged eight to 10 years (46 minutes). Participation in social networking also varied with age, ranging from 18 per cent among eight to 10-year-olds, up to 42 per cent of 11 to 14-year-olds, and 53 per cent of 15 to 18-year-olds visiting a social networking site on a typical day.

Overall, American boys spent an average 15 minutes more per day using computers than girls. Boys spent more time playing computer games (an average 25 minutes for boys, eight minutes for girls), and watching videos on sites such as YouTube (17 minutes boys, 12 minutes girls). Girls spent more time on social networking sites (an average 25 minutes on a typical day for girls, 19 minutes boys), but girls and boys were equally likely to visit these sites on a typical day (40 per cent boys and girls).
Interestingly, the research shows that the gender difference in computer time appears only in the teenage years. American boys and girls start out spending equal amounts of time on a computer, but a disparity develops over time, so that among 15 to 18-year-olds there is a 42 minute gender gap (an average 1:59 on a typical day for boys, 1:17 for girls). A clear reason for this disparity is that girls lose interest in computer games, while boys do not. Girls go from an average 12 minutes a day playing computer games when they are eight to 10 years of age, down to just three minutes by the time they are 15 to 18-years-old. There is no such decrease among boys.

**Comparative analysis**

**Access to computers and the internet higher for Australian youth**

In 2007, MCAF 2007 found that nearly all Australian family households with children and young people aged eight to 17-years-old had a computer (98 per cent). The vast majority also had the internet at home (91 per cent), and three-quarters (76 per cent) had broadband.

This means that more Australian family households had a home internet connection, or broadband/a fast internet connection in 2007, than American family households in 2009. In 2009, 84 per cent of all American families—rising to 88 per cent of ‘Other’ American families—had the internet at home, and 59 per cent—rising to 61 per cent of ‘Other’ American families—had wireless or high-speed internet.

**The internet second only to TV for Australian youth**

In addition to high levels of access, the MCAF 2007 research also identified the clear importance of the internet for young Australians. In 2007, eight to 17 year-olds reported spending an average one hour and 17 minutes per day on the internet, making going online the second most time consuming media activity for Australian youth behind watching television.

Time spent per day using the internet by young Australians included:

> 13 minutes of homework

> 34 minutes of internet-based communications activities comprising instant messaging (18 minutes), using social websites (11 minutes), and emailing (five minutes)

> 30 minutes of other internet activities including gaming against other players (15 minutes), watching/listening to clips, movies etc. (seven minutes) and other internet activities (eight minutes).

Figure 13 shows the proportion of total internet time per day spent doing individual online activities by eight to 17-year-olds in 2007.
Young Australians spent the most time using instant messaging services (23 per cent of internet time for eight to 17-year-olds), followed by gaming online (19 per cent), homework (17 per cent), and then social networking (14 per cent). This usage profile is similar to that of American youth in 2009, with the importance of communications activities such as instant messaging and social networking, as well as the popularity of playing games, clearly apparent.

**Demographic differences—time spent online**

In 2007, both Australian boys and girls aged eight to 17 years spent an average one hour and 17 minutes per day using the internet, but they divided their time among individual online activities differently. Girls spent significantly more time per day than boys engaged in online communications activities, such as email, instant messaging, and visiting social websites (an average 38 minutes per day on communications activities for girls, 28 minutes for boys).

Boys spent significantly more time than girls playing games online against other players (an average 22 minutes for boys, eight minutes girls). There were no gender differences for time spent doing homework on the computer (12 minutes boys, 15 minutes girls), watching video content or listening to music online (seven minutes boys, seven minutes girls), and doing other things on the internet (seven minutes boys, eight minutes girls).

Average time spent online also increased significantly with age. Eight to 11-year-olds spent an average 30 minutes per day online, 12 to 14-year-olds an average 1:32, and 15 to 17-year-olds an average 2:24 per day.

**Preferences for individual internet activities change with age**

Results from the latest CPCLA survey also show that preferences for individual internet activities change with age.

According to parent reports, younger primary-school aged children are most likely to play games and do educational activities online. However, as children age and enter high-
school, communications activities and accessing video and music content online become more common. Online educational activities remain consistently important across the 5 to 14 years age range.

In 2009, parents reported that the top internet activities for five to eight-year-olds were:
> playing online games (77 per cent of five to eight-year-olds had played online games over the previous 12 months)
> educational activities (64 per cent)
> general surfing or browsing (29 per cent).

Just under one-in-five five to eight-year-olds had listened to or downloaded music (18 per cent), or watched or downloaded TV programs, videos, or movies (17 per cent). Online communications activities were relatively rare among this group with 10 per cent using email, five per cent using chat rooms, forums or instant messaging services, and three per cent using social networking sites.

By the time children were nine to 11 years of age, use of the internet started to diversify. Parents reported that the top activities for this age-group in 2009 were:
> educational activities (91 per cent)
> playing online games (73 per cent)
> other general surfing or browsing (48 per cent)
> listening to or downloading music (43 per cent)
> emailing (31 per cent)
> watching or downloading TV programs, videos or movies (26 per cent)
> using chat rooms, forums, or instant messaging (23 per cent)
> using or visiting social networking sites (11 per cent).

Once children were in high-school, online communications activities and accessing content online were much more prominent, with participation in online gaming declining slightly. Parents reported that the top activities for 12 to 14-year-olds were:
> educational activities (94 per cent)
> listening to or downloading music (73 per cent)
> other general surfing or browsing (68 per cent)
> using chat rooms, forums, or instant messaging (60 per cent)
> emailing (60 per cent)
> playing online games (59 per cent)
> visiting or using social networking services (48 per cent)
> watching or downloading TV programs, videos or movies (40 per cent).

A more recent study conducted by the ACMA in 2008 on children and young people’s use of social networking services, also found that participation in social networking increases with age. This research published in the report *Click and connect: Young Australian’s use of online social media*, found that 51 per cent of eight to 11-year-olds who used the internet at home reported having used a social networking service, rising to 90 per cent of online 12 to 17-year-olds using at least one social networking service. MSN Messenger was the most widely used social networking service (used by 31 per cent of eight to 11-year-olds and 76 per cent of 12 to 17-year-olds).
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