







Content consumption is evolving. Digital dominates time spent, but smartphones alone will begin to threaten TV's previous dominance

AVG. TIME SPENT PER DAY IN (HOURS:MINS)







IN 2015...

NEARLY 3 IN 5

accessed the internet on a mobile phone in the US, representing **75%** of mobile phone users

190.5M

represented the US smartphone user base, signifying growth of **11.4%**

53%

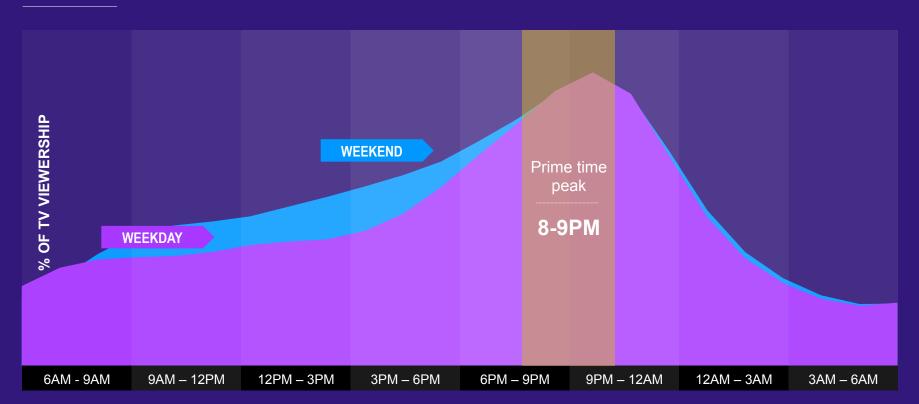
of the world's mobile phone users were mobile internet users, marking the first year in which that metric surpassed the 50% mark

Yahoo 2015 Confidential & Proprietary.



Traditional TV watching still peaks during prime time

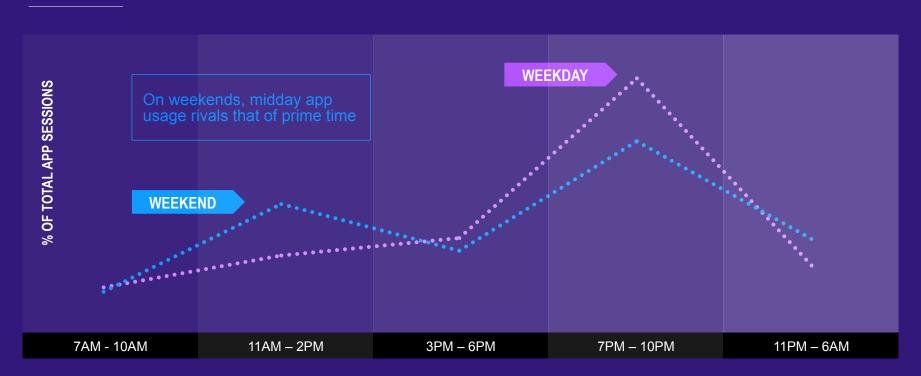
WEEKDAY VS. WEEKEND | TV RATINGS BY HOUR





...however prime time is not just for traditional TV watching anymore

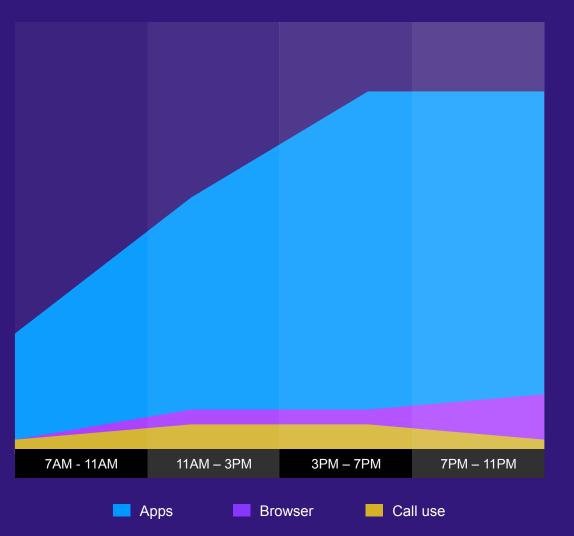
WEEKDAY VS. WEEKEND | TIME OF DAY APP USAGE





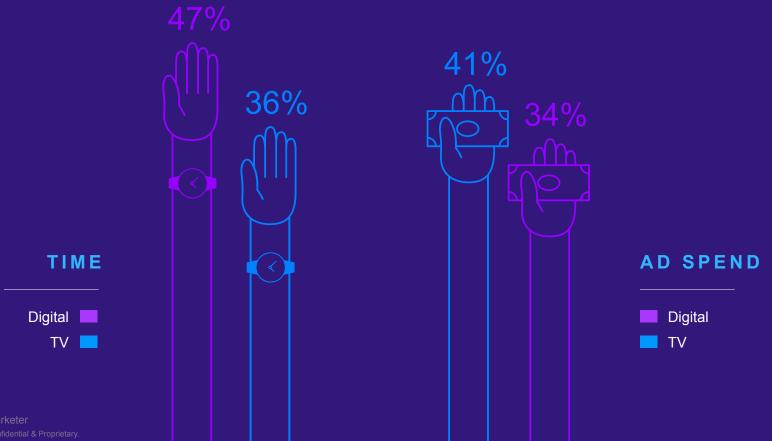
Application usage dominates all phone activities regardless of the time of day

A mobile device is dominated by application usage. Phone use is more likely to occur during the day as the smartphone converts to personal use during the evening.





However, there is still an uneven ad spending split between TV and digital





Objective & Methodology

OBJECTIVE:

In today's crowded media landscape, we look to discover how audiences naturally interact with different media and the advertising therein.

However, in order to get a clear picture of engagement, we will leverage behavioral and biometric analysis to inform our conclusions.

FLURRY ANALYTICS

Aggregated US Flurry Data from May 2015

- 720K apps
- 2BN+ devices globally
- 10BN+ sessions/day (1.42 sessions/person)



REALITY MINE DATA

The data includes passive metering results from 500 panelists in August 2015 and 2,000 panelists from our eDiary from October 2014 through February 2015





Methodology | Nielsen Consumer Neuroscience



N = 150 Participants



50/50 Male/ Female



50/50 Millennials/Gen X (18-34) / (35-54)



All Using Reality Mine Smartphone Tracking Software





All Using Wearables:

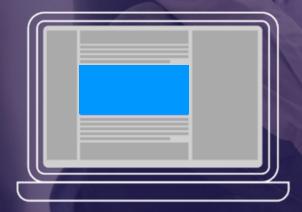
Point-of-View Glasses and Basis Wristwatches

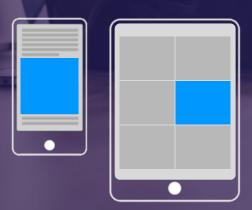


Over **1700 Hours** of Measured Biometric Data



Important Metrics





ATTENTION

- If more than one device is being used at once, the device that is being looked at for more time during cross-device use is considered to be the primary device.

EMOTIONAL RESPONSE

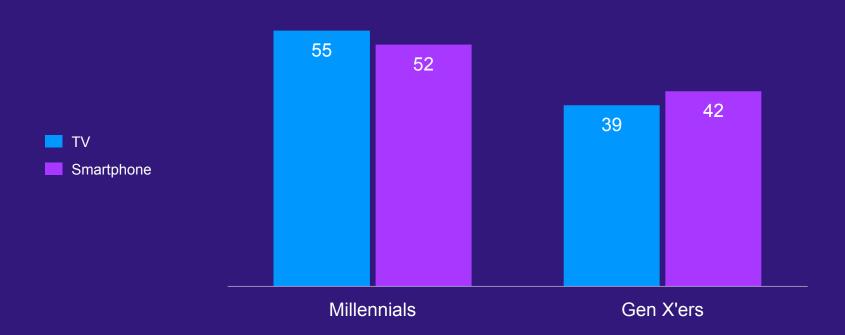
- Emotional Response is Tied to In-Market Success. When information elicits an emotional response from consumers, it indicates that information is relevant and prioritizes it for other cognitive processing. Cognitive processes influenced by an emotional response include orientation of attention and memory formation.
- Response is shown as an indexed score. A score of 50 represents an average emotional response.





Throughout the day, Millennials are more responsive to different devices than Gen X'ers

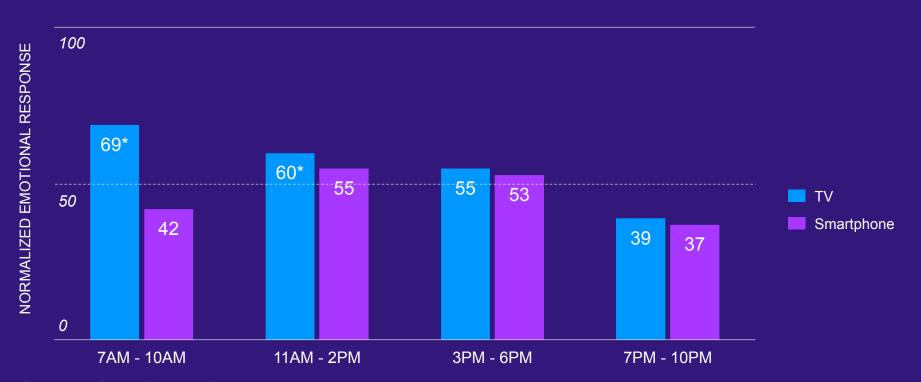
TOTAL DAY | EMOTIONAL RESPONSE TO DIFFERENT DEVICES





Throughout the day, Millennials are more responsive to different devices than Gen X'ers

TOTAL DAY | EMOTIONAL RESPONSE TO DIFFERENT DEVICES





Ads achieve more emotional response on smartphones than on TV



43
EMOTIONAL RESPONSE

53 EMOTIONAL RESPONSE

TV Ads

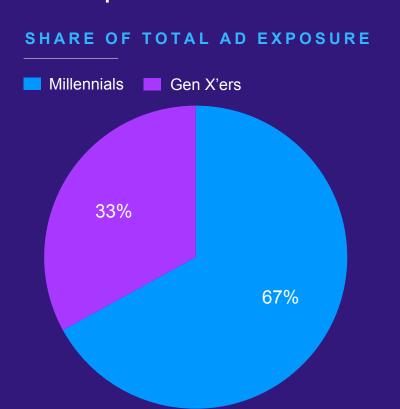
Source: Nielsen Biometric Day in the Life

Smartphone Ads



Gen X'ers are more proficient at ad avoidance, but Millennials are more responsive to ads especially on smartphones

TV Ads



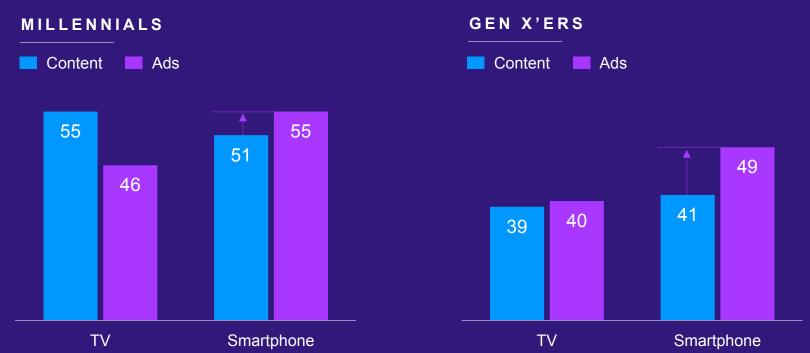
EMOTIONAL RESPONSE TO ADS --- Average emotional response for the day (50)

Smartphone Ads



Differences in emotional engagement between content and ad by device

Gen X'ers are more responsive to advertising on different devices than they are to the content itself. This may be due to lower ad loads on digital devices and more personalized experiences



Source: Nielsen Biometric Day in the Life



People watch TV for the content, not the ads



KEY TAKEAWAY

TV still leads other media in terms of overall consumption and engagement, but when you look deeper you find that it's the content that generates the strongest emotional response. The clear winner for advertising engagement is the smartphone across the board – this is likely due to:

- 1. TV ad load is so high during prime time
- 2. TV ad avoidance is prevalent
- 3. Smartphones feature advertising that can be less prevalent and more relevant
- 4. People who are multitasking turn to other devices during their heightened emotional state





How many people are multi-screeners?

78%

Source: IAB, Apr '15

94%

Source: TiVo, Nov '1_'

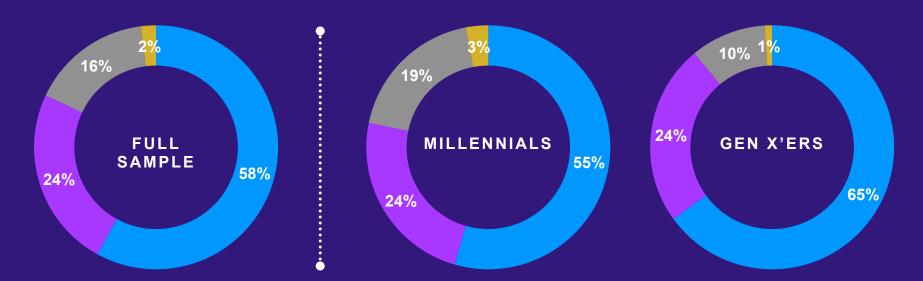
79%

Source: Market Track, Sep'15



TV + Laptop is the most common multitasking method

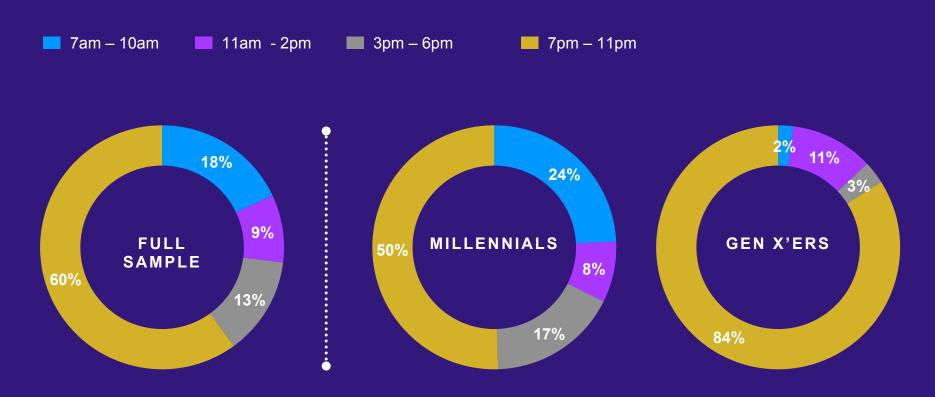




Millennials and Gen X'ers are equally likely to multitask with their TV and smartphone, and Millennials multitask with their laptop + smartphone almost twice as frequently as Gen X'ers.

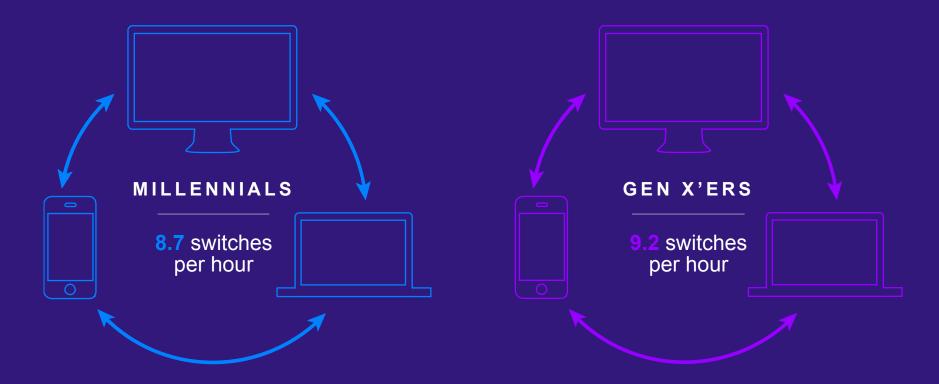


Although most cross-device use occurs in the evening – this is an exaggerated trend for Gen X'ers





Unsurprisingly, with the prevalence of multitasking during prime time, device switching is more frequent for both groups from 7-10PM

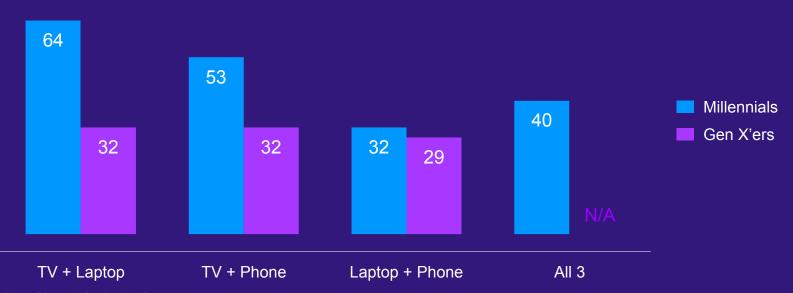




Millennials are considerably more proficient than Gen X'ers at multi-tasking during prime time

Gen X'ers respond the least emotionally to multitasking during prime time, potentially making this a difficult audience to reach and engage emotionally for advertisers.

EMOTIONAL RESPONSE TO MULTITASKING-DURING PRIME TIME





Multitasking during prime time actually makes individuals more receptive to advertising

EMOTIONAL RESPONSE TO ADVERTISING PRIME TIME

Primetime is the only time of day where multitasking *increases* emotional response to ads. Millennials really display their proficiency at multi-tasking here.

Gen X'ers are mainly unitasking with TV where they are mainly engaged in the content and not the advertising.





Although TV is the device used the most, smartphones actually receive the highest amount of "primary attention"

94%

PERCENT OF TIME USING DEVICE AS THE PRIMARY DEVICE - DURING PRIME TIME

94% of the time that a Smartphone is being touched during these hours, it is being used as the primary device.

SMARTPHONE

83%

APTOP

80%

Source: Nielsen Biometric Day in the Life Yahoo 2015 Confidential & Proprietary.



Digital is winning the battle for consumer attention when it comes to advertising

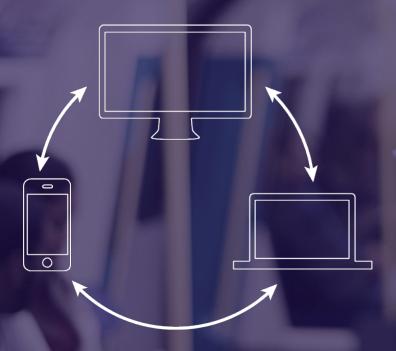
% of time consumer attention diverted to another device when ad appeared



Yahoo 2015 Confidential & Proprietary.



Multitasking is a younger person's game, but in order to breakthrough smartphones hold the key



KEY TAKEAWAY

In the battle for eyeballs during prime time where an average CPM for TV is \$27 and the average daily CPM for mobile is \$3*, smartphones win in:

- Attention Smartphones are the primary device of attention for consumers of all ages.
- Engagement Over half of the time a TV ad is on screen the consumer's attention is diverted to another secondary screen (laptop or smartphone).

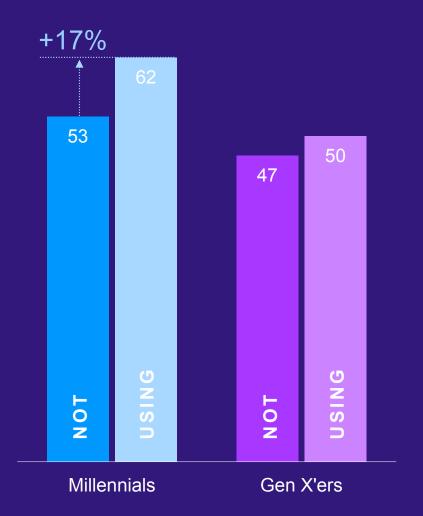




For Millennials, during prime time an *increase* in app use is related to an *increase* in emotional response

APP USAGE

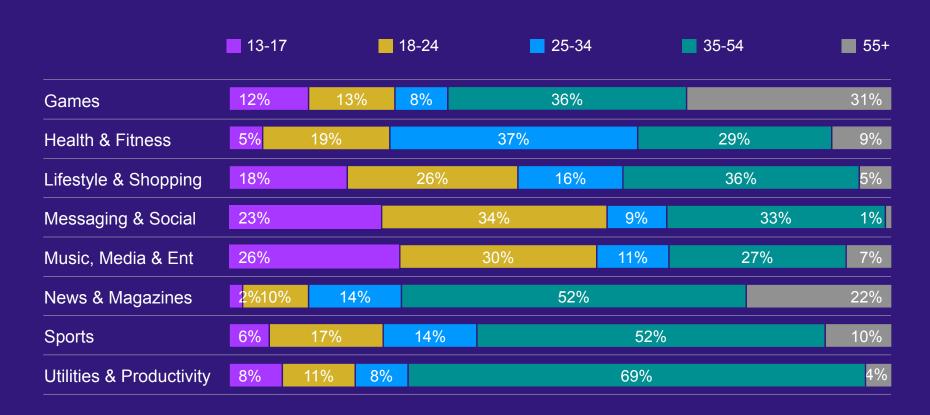
Although using apps is still slightly more engaging than not for Gen X'ers, the increase in emotional response to apps is greatly increased for Millennials.





What drives usage varies by demographic

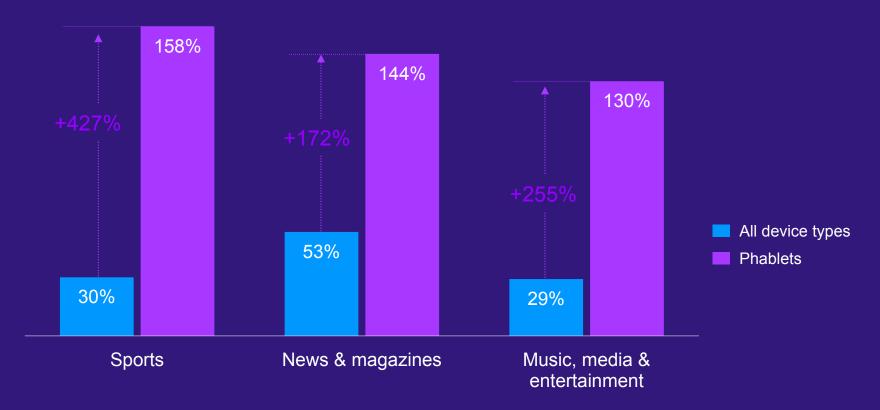
% growth in category usage





However, what will move media experiences even further is phablet ownership

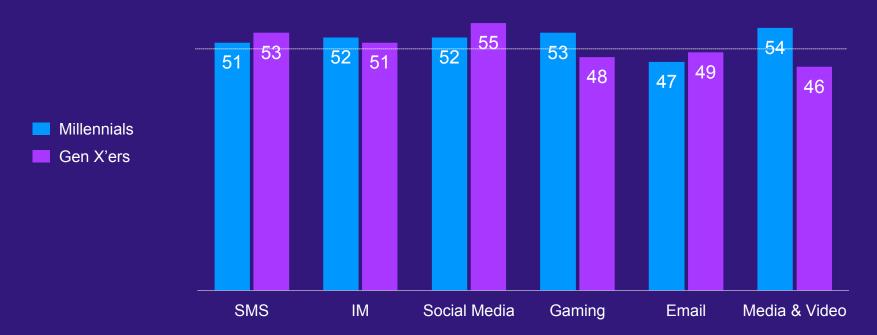
% growth in sessions year over year





This skew is also felt emotionally depending on the types of apps being used

Understanding the emotional response to app use is critical. When individuals are in a heightened emotional state, they are more receptive to "outside" information (such as ads).





In fact, how Millennials consume apps throughout the day has important nuances

USERS 18-34 TIME OF DAY USAGE PER CATEGORY | INDEXED VS. GENERAL POPULATION

DAY

7AM - 10AM

Health & Fitness, 152 News & Magazines, 133 Lifestyle & Shopping, 111 Games, 106

11AM - 2PM

Lifestyle & Shopping, 113 News & Magazines, 113

3PM - 6PM

Lifestyle & Shopping, 108



NIGHT

7PM – 10PM

Sports, 107

11PM - 6AM

Music, Media, & Entertainment, 111 Messaging & Social, 110 Utilities & Productivity, 108



For Gen X'ers, they tend to be busier to start the morning which makes sense as they are likely to be commuting to work

USERS 35-54 TIME OF DAY USAGE PER CATEGORY | INDEXED VS. GENERAL POPULATION

DAY

7AM - 10AM

News & Magazines, 149 Health & Fitness, 145 Lifestyle & Shopping, 119 Music, Media, & Ent, 116 Games, 114 Messaging & Social, 106

11AM - 2PM

News & Magazine, 111 Lifestyle & Shopping, 108

3PM - 6PM

Lifestyle & Shopping, 109



NIGHT

7PM - 10PM

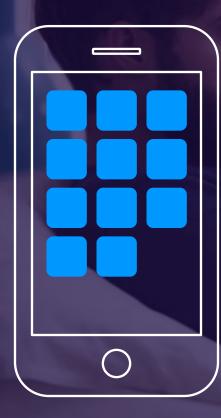
Sports, 106 Games, 103

11PM -6AM

Music, Media, & Entertainment, 117 Utilities & Productivity, 107



Consumers' habits continue to evolve. As advertisers, it is important to acknowledge nuances



KEY TAKEAWAYS

- Health & Fitness apps are more likely to be used by
 Millennials in the early morning hours as they are much less
 likely to be commuting or working.
- Sports and game apps tend to be how adults 18+ end their days.
- Millennials and Gen X'ers satisfy their need to be "in the know" in the morning hours by engaging with news apps as a great way to start their day.
- 18-54 year olds spend the majority of their day catching up on their lifestyle and shopping apps, showing the importance of consistent messaging throughout the day, and not just when consumers are in store.
- Interestingly enough, Gen X'ers are more likely to start off their day using messaging and social apps than Millennials.



Implications

MOBILE IS THE NEW PRIME TIME VEHICLE OF CHOICE

- Mobile apps have become the top media channel as usage on mobile increases, and app usage peaks at prime time.
- Advertisers should take
 advantage of the heightened
 emotional receptivity
 smartphones deliver for
 advertising during the entire day,
 as it is a more efficient buy when
 compared to prime time TV.

MOBILE IS ALSO THE KEY TO UNLOCKING ATTENTION

- Remember, 57% of the time that a TV ad was seen by a participant, attention was deployed to another device (laptop or smartphone).
- It is more important than ever to take advantage of digital and specifically smartphones, as it is the clear leader in engagement and attention for advertising.

APP BEHAVIOR IS EVOLVING

- Mobile apps continue to grow media influence on mobile.
 When targeting these key segments, keep in mind the unique opportunities every demographic presents.
- Content is king. As phablet penetration increases expect this to alter behavior considerably among younger demographics.