QUALITY CONTENT

THE SECRET LIFE OF
STREAMERS
AT THE INTERSECTION OF
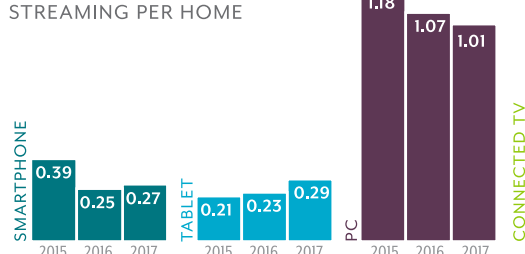## DEVICES – CONTENT – LOCATION – QUALITY
PART 2

DEVICES LOCATION

Conviva has partnered with nScreenMedia to mine billions of streaming data points over the past three years to uncover consumers' video streaming trends. Specifically, the data analyzes the role devices, content, location and quality play in shaping the viewing habits of people in the US and around the world. In addition, the study looks at in-home vs. out-of-home viewing, viewing trends broken down by every hour of an average day and streaming content broken down by type: short, long, live linear and sport.
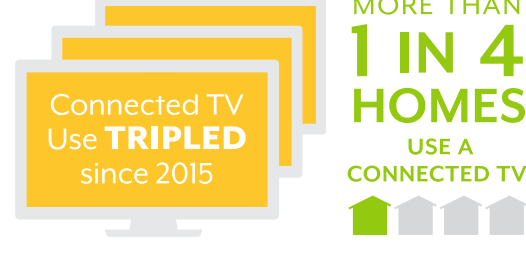
DEVICES How They Watch

Device Usage Over the Years
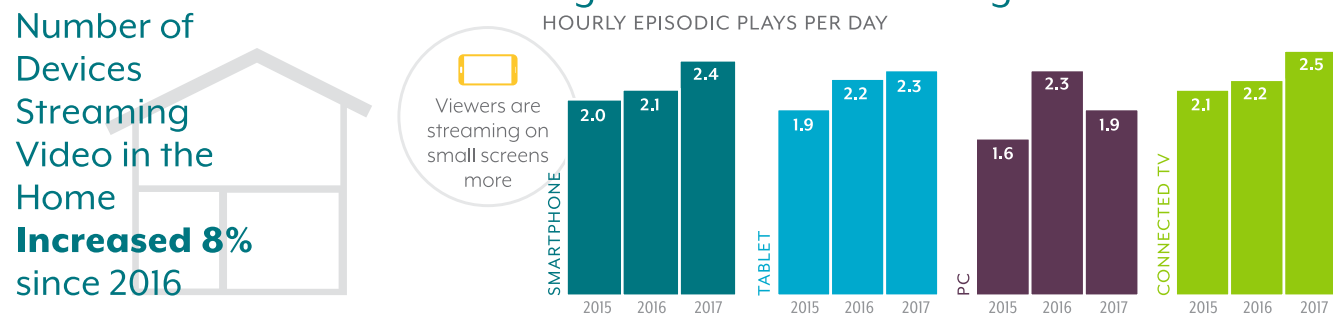AVERAGE NUMBER OF DEVICES STREAMING PER HOME

SMARTPHONE: 0.39 (2015), 0.25 (2016), 0.27 (2017)
TABLET: 0.21 (2015), 0.25 (2016), 0.29 (2017)
PC: 1.18 (2015), 1.07 (2016), 1.01 (2017)
CONNECTED TV: 0.09 (2015), 0.20 (2016), 0.27 (2017)

Connected TV is growing in use while PC usage is declining

The Big Screen is King
MORE THAN
1 IN 4 HOMES
USE A CONNECTED TV

Connected TV Use TRIPLED since 2015

Number of Devices Streaming Video in the Home
Increased 8% since 2016

Big & Small Screen Viewing
HOURLY EPISODIC PLAYS PER DAY

Viewers are streaming on small screens more

SMARTPHONE: 2.0 (2015), 2.3 (2016), 2.4 (2017)
TABLET: 1.9 (2015), 2.2 (2016), 2.5 (2017)
PC: 1.6 (2015), 2.3 (2016), 1.9 (2017)
CONNECTED TV: 2.2 (2015), 2.2 (2016), 2.5 (2017)

CONTENT When They Watch

Transfer of Power – PC & Connected TV Swap!
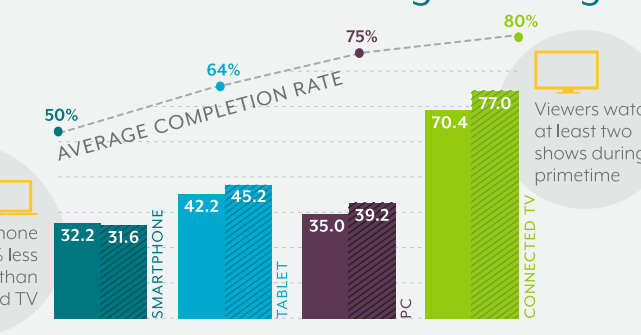NUMBER OF PEOPLE WATCHING TV SHOWS BY DEVICE OVER 24 HOURS

Connected TV leads all day long and peaks during primetime

Tablet passes PC at primetime

THE PC IS FALLING OUT OF FAVOR
Plays on the PC at lunchtime decreased 29% since 2016

CONNECTED TV
TABLET
PC
SMARTPHONE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

WORK HOURS   PRIMETIME
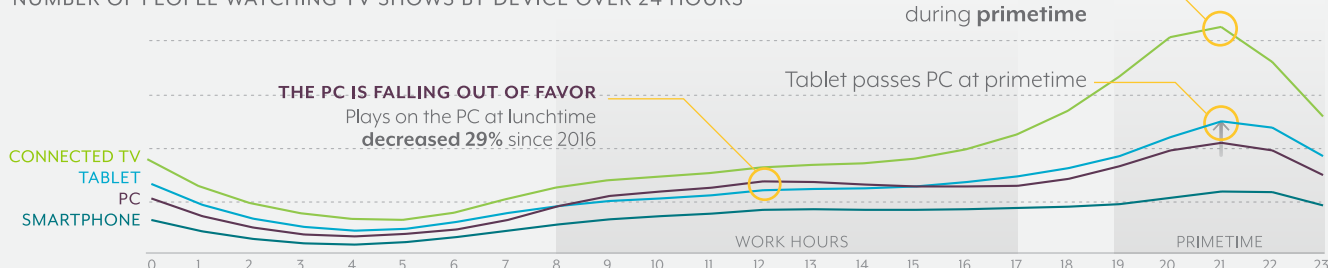
Primetime Viewing Shift
DEVICE SHARE OF EPISODIC PLAYS FROM 7PM TO 11PM

SMARTPHONE
TABLET
PC
CONNECTED TV
2017
2016

11%, 8%, 22% (outer)
35%, 18%, 39%, 19% (middle)
48% (inner)

PC is being eaten by connected TV

Connected TV is for Binge Viewing

AVERAGE COMPLETION RATE
50%, 64%, 75%, 80%

Viewers watch almost two shows during primetime

SMARTPHONE: 32.3 (all day), 31.0 (primetime)
TABLET: 42.2 (all day), 45.2 (primetime)
PC: 35.0 (all day), 39.2 (primetime)
CONNECTED TV: 70.4 (all day), 77.0 (primetime)

PC & smartphone have 50% less viewing time than connected TV
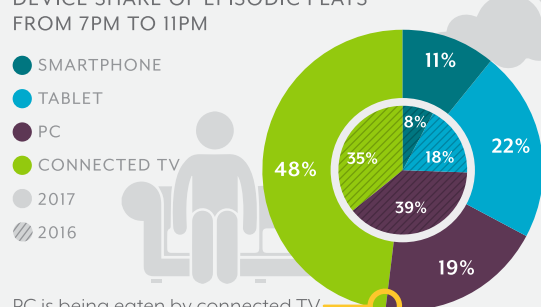
TV SHOW PLAYTIME PER UNIQUE VIEWER (MINUTES)
ALL DAY   PRIMETIME

How Long They Watch by Device
TV SHOW PLAY TIME PER UNIQUE VIEWER OVER 24 HOURS (MINUTES)

CONNECTED TV
TABLET
PC
SMARTPHONE

BINGE-WATCHING INSOMNIACS?

ARE THERE CONNECTED TVS AT WORK?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

WORK HOURS   PRIMETIME
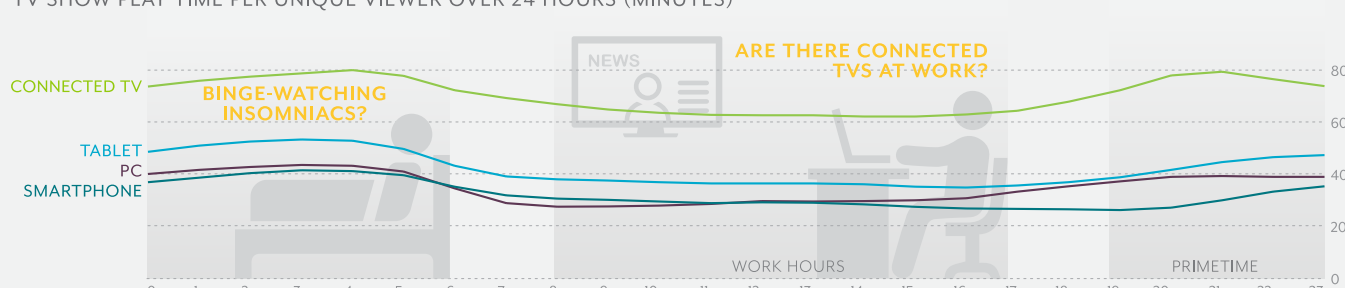
LOCATION The Content Types Used In Home and Out of Home

The Long and Short of Video Starts
IN HOME   OUT OF HOME   2017   2016

In-home viewing is more balanced in 2017

Live content is more popular in the home (56%) than out (24%)

CONNECTED TV & PC VIDEO STARTS INSIDE THE HOME
LONG: 27% (2016), 25% (2017)
SHORT: 53% (2016), 39% (2017)
LIVE: 19% (2016), 36% (2017)

TABLET & SMARTPHONE VIDEO STARTS OUTSIDE THE HOME
LONG: 36% (2016), 34% (2017)
SHORT: 42% (2016), 39% (2017)
LIVE: 25% (2016), 24% (2017)
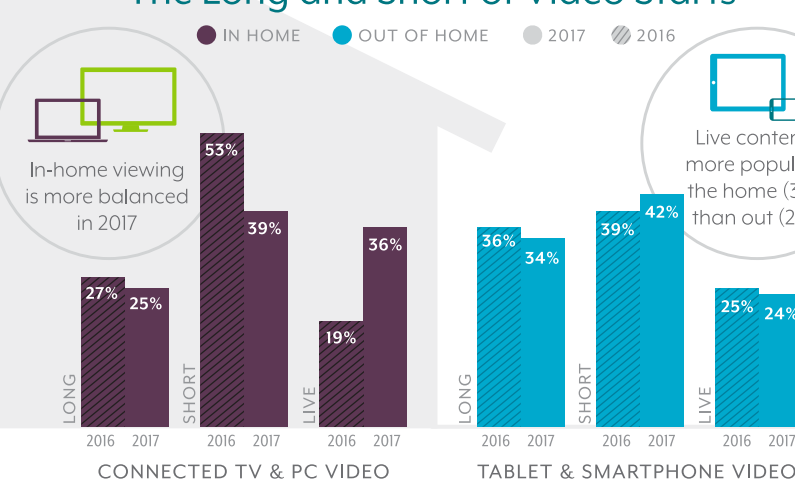
iOS Dominates Outside of the Home
DEVICES USED FOR VIDEO OUTSIDE THE HOME

2% GAME CONSOLE
4% OTHER
21% ANDROID
32% PC
5% ISTB
56% iOS
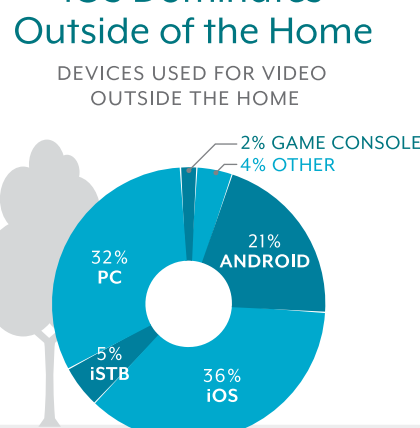
Mobile Content Mix by Country
VOD SHORT FORM
VOD LONG FORM
LIVE EVENT

UK: 5%, 17%, 17%
US: 9%, 18%, 7%
SPAIN: 9%, 12%, 16%
NORWAY: 4%, 7%, 15%
GERMANY: 13%, 14%, 20%
CHINA: 8%, 14%, 16%
CANADA: 12%, 18%, 15%
AUSTRALIA: 12%, 15%, 20%
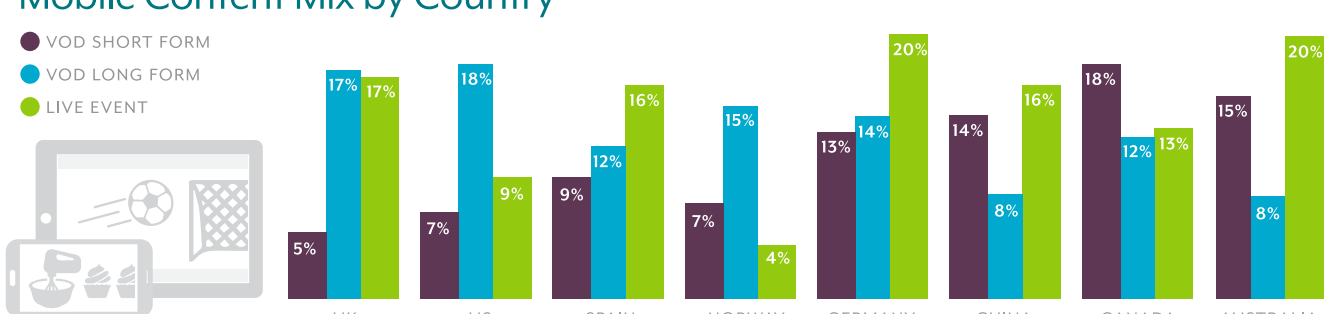
QUALITY What They Want

Mobile Experience Globally is Better, but There's Room for Improvement

2017   2016

MOBILE REBUFFERING RATIO
UK: 0.4%, 0.4%
US: 1.0%, 1.4%
SPAIN: 0.6%, 1.3%
NORWAY: 0.4%, 0.6%
GERMANY: 1.4%, 2.3%
CHINA: 1.6%, 1.8%
CANADA: 0.6%, 1.0%
AUSTRALIA: 0.3%, 1.1%

Germany & China need to beware of buffer rage

MOBILE VIDEO BITRATE (Mbps)
UK: 3.58, 3.54
US: 2.84, 2.30
SPAIN: 3.47, 3.48
NORWAY: 4.56, 3.56
GERMANY: 3.00, 4.21, 1.28
CHINA: 2.72, 2.34
CANADA: 2.65, 1.98

Picture quality is improving across the globe

MOBILE STARTUP TIMES (SECONDS)
UK: 5.72, 5.77
US: 3.17, 3.40
SPAIN: 2.64, 5.04
NORWAY: 5.05, 5.65
GERMANY: 4.22, 8.26
CHINA: 5.07, 5.75
CANADA: 4.02, 12.00
AUSTRALIA: 5.24, 10.66

Huge improvements in Spain, Germany, Canada & Australia

Globally Speaking
DEVICE SHARE OF VIDEO PLAYS BY COUNTRY
MOBILE/TABLET   PC   CONNECTED TV   2017   2016

Connected TV is up in UK, US, Norway, Germany & Australia

PC is down across the globe

UK   US   SPAIN   NORWAY   GERMANY   CHINA   CANADA   AUSTRALIA

Conviva monitors over 14 billion streaming video hours per year from over 3 billion video viewing applications and devices across the globe. The data used in this research study came from nearly 2 billion streaming sessions in North America from April 2016 to April 2017. A second data set from October 2016 and October 2017 was also used covering global streaming sessions. Data was analyzed from connected TV devices, smartphones, tablets and other devices. Findings represent a subset of global OTT video consumption data that Conviva collects and analyzes on behalf of some of the world's leading OTT video providers.

conviva.com   conviva