Connected Life Market Watch:

Transitions in U.K. Consumer Video Entertainment

Cisco Internet Business Solutions Group

October 2010

Connected Life Market Watch Program: Transitions in Consumer Video Entertainment

Scope

- United States
- United Kingdom
- Brazil
- China
- Germany

Approach

Market Watch Program

- Cisco IBSG's recurring primary research program
- Monitors changing consumer behavior to identify key market transitions

Methodology

- Broadband consumers
- 20-minute online survey
- 5,500 total respondents
- December 2009 – January 2010

Segmentation

- Used proprietary scoring methodologies to identify consumer "technology" segments

Source: Cisco IBSG Connected Life Market Watch, 2010

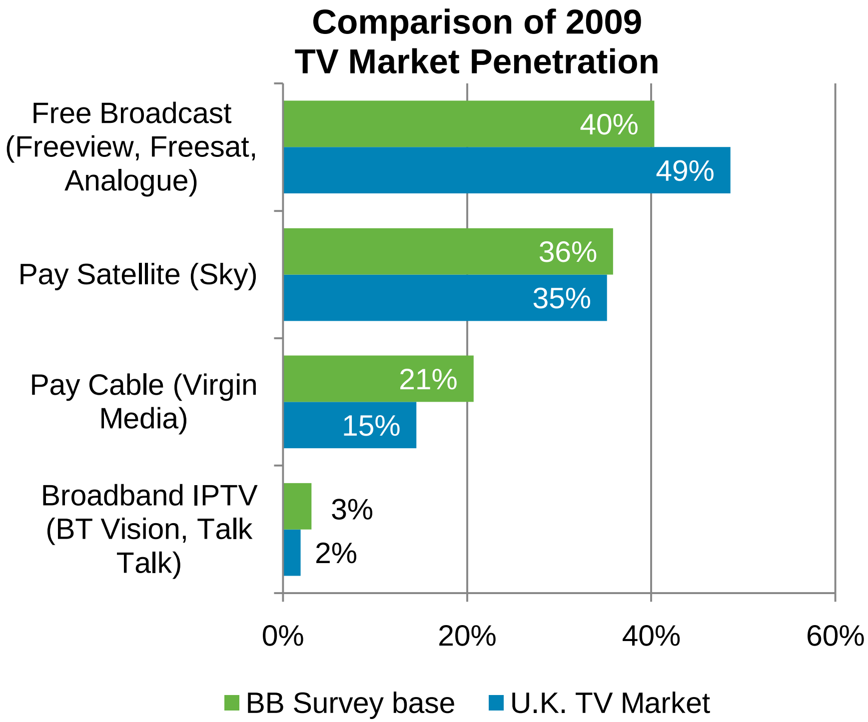
Transitions in U.K. Consumer Video Entertainment: Executive Summary

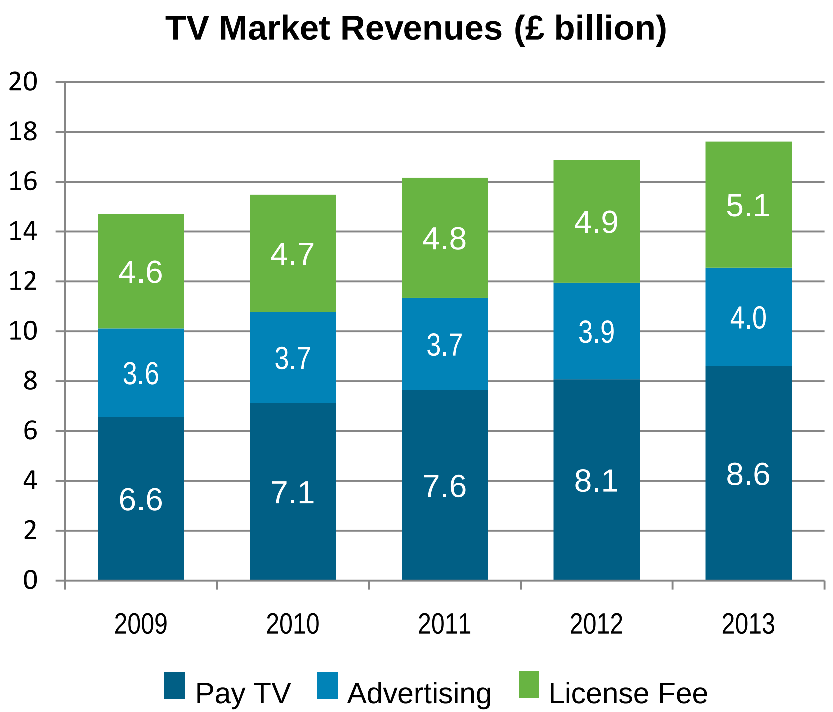
- Video Entertainment Today
  - —Traditional cable/satellite TV market is saturated
  - —Consumers have invested significantly in home entertainment equipment
  - —Traditional premium content drives much of market
  - —Internet has become key source for entertainment
- Key Transitions: Consumers Are Taking Control
  - —Consumer TV viewing behavior is changing (e.g., time shifting, device shifting)
  - —Consumers are exploring Internet video as new source of video entertainment
- Impact of Transition
  - —Consumers are interested in alternative services
  - —New usage patterns can impact traditional TV revenue streams
  - —Interest differs by customer segment
- Going Forward
  - —Key trends to watch
  - —Service provider opportunities

Source: Cisco IBSG Connected Life Market Watch, 2010

Video Entertainment Today: Situation

U.K. TV Market Saturated, But Some Growth Expected





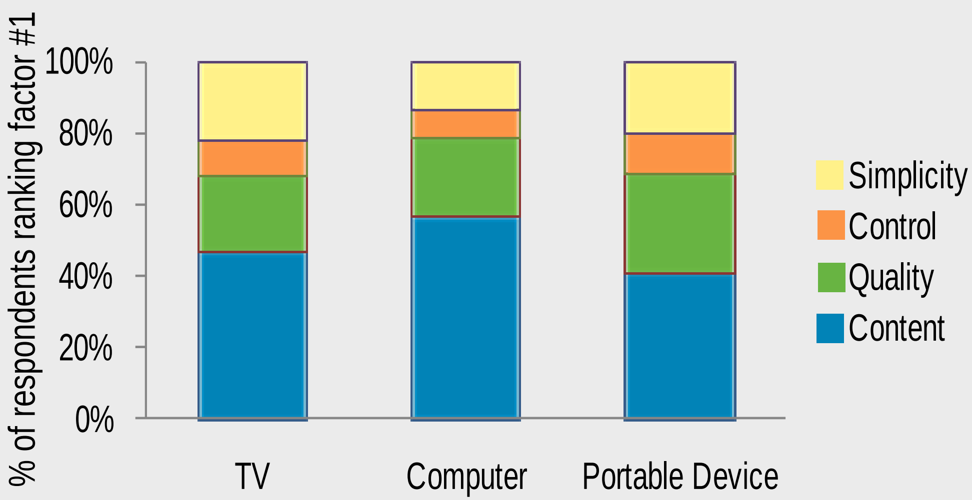
- Future of public sector broadcasting being debated: How will it be funded?
- Majority of pay TV revenue growth to come from new subscriptions
- Intense competition among broadcasters, satellite, cable, and SPs for viewers/customers

Source: Cisco IBSG Connected Life Market Watch 2010; Screen Digest, 2010

Traditional Content Still Drives Industry

Most Important Attribute to Video Experience

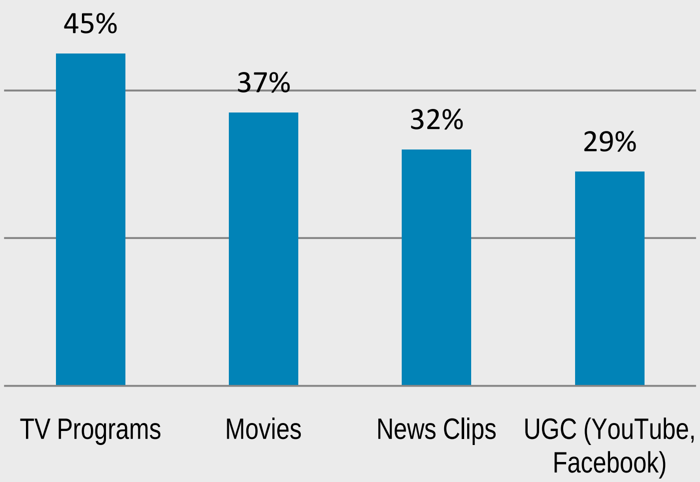
Ranked #1 by Consumers, for All Viewing Devices



Content is most important part of the experience, even as consumers explore new devices and video sources.

Interest in Viewing Internet Video on TV

by Type of Content



Even with Internet-sourced video, consumers are most interested in traditional, professional content.

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. Broadband Consumers

Consumers Are Investing Heavily in Home Video Experience

Average U.K. broadband HH:

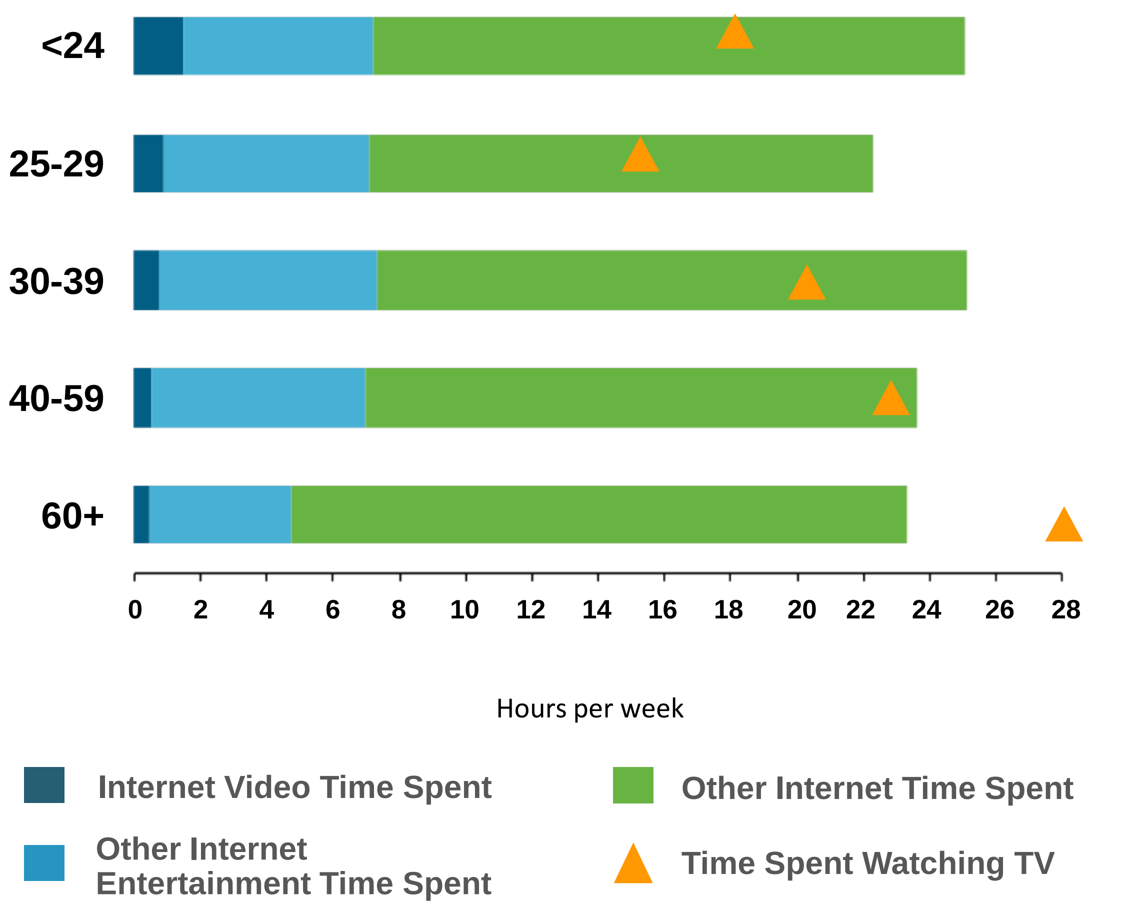
- 2.3 TVs, including 1 HDTV
- Spends £18 per month for pay-TV services
- Spends another £12 on other forms of video watched at home

U.K. Broadband Consumers	
Subscribe to Cable/Satellite/Telco TV	**65%**
Subscribe to Premium Movies	**31%**
Subscribe to TV VoD service	**35%**
Have an HDTV	**65%**
Have DVR	**46%**
Have a gaming console with DVD functionality	**33%**

Source: Cisco IBSG Connected Life Market Watch, 2010

Consumers Spend More Time on Internet Than Watching TV

- Consumers spend more time in front of computer screen than TV screen
- Entertainment-focused Internet time does not exceed TV time, but is significant, especially among those under 30

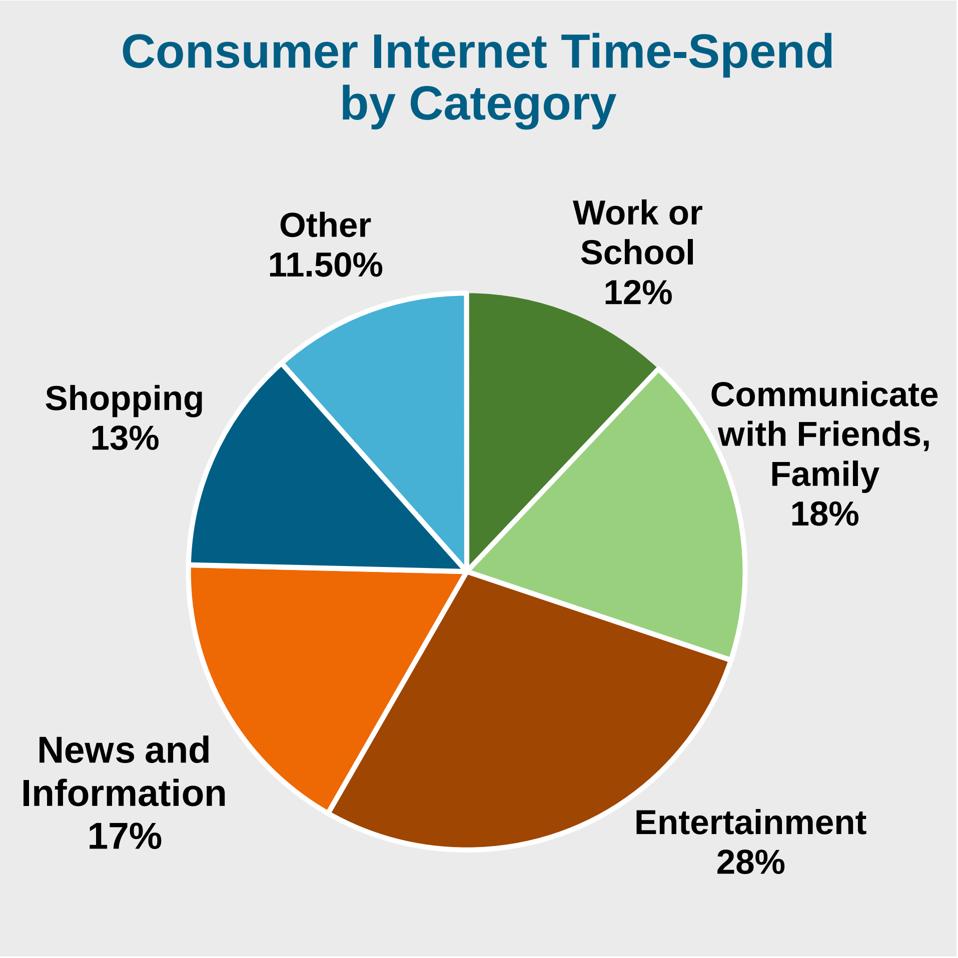


Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Entertainment Is #1 Reason Consumers Use Internet

- Entertainment leads consumer time-spend on Internet among all age groups
- Broadband consumers spend 24 hours per week on Internet. And, they spend almost 7 of those hours on entertainment
- Internet as entertainment vehicle is not limited to early technology adopters
- Late-market adopters devote more Internet time-spend to entertainment than earlier technology adopters do



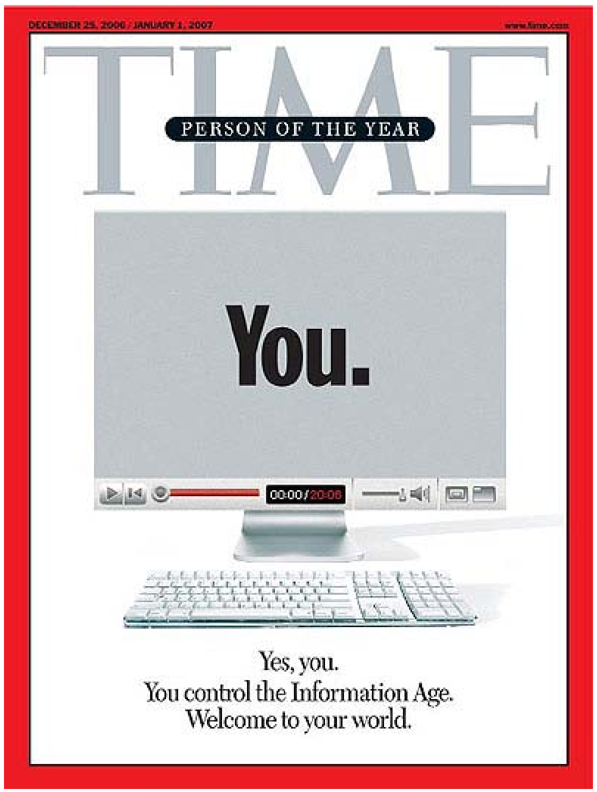
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Key Transitions

Consumers Are Taking Control of Video Entertainment Experience

2006 *TIME* Magazine Person of the Year



Consumers got the message

- DVRs taught users they could take control of video experience
- This increased user control is driving four interrelated trends:
    1. Time shifting
    2. Device shifting
    3. Increased video sourcing options (e.g., Internet)
    4. Increased spending control
- Together, these are part of larger, viewer-controlled viewing trend

Source: *Time* Magazine, 2006; Cisco IBSG Connected Life Market Watch, 2010

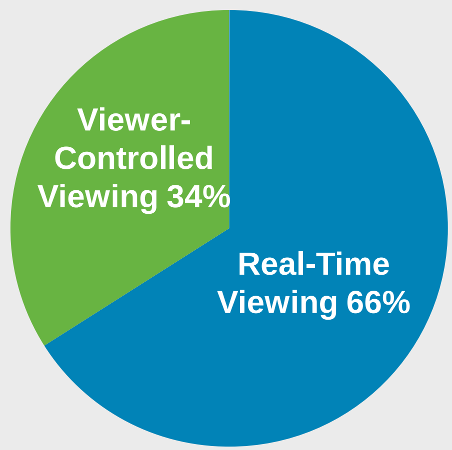
Traditional TV Experience Is Changing

Consumers Are No Longer Making Appointments with Their TVs

- Consumers are changing their usage patterns
- They are no longer making appointments with their TV
- They want to watch their video entertainment at the time they choose

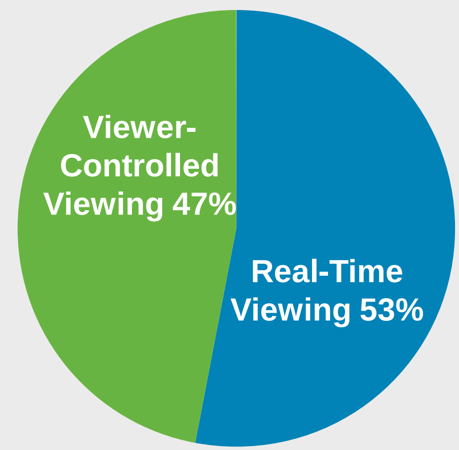
Real-Time vs. Controlled Viewing

Average Consumers
(Percentage of Time Spent)



Base: U.K. broadband consumers

DVR Owners
(Percentage of Time Spent)

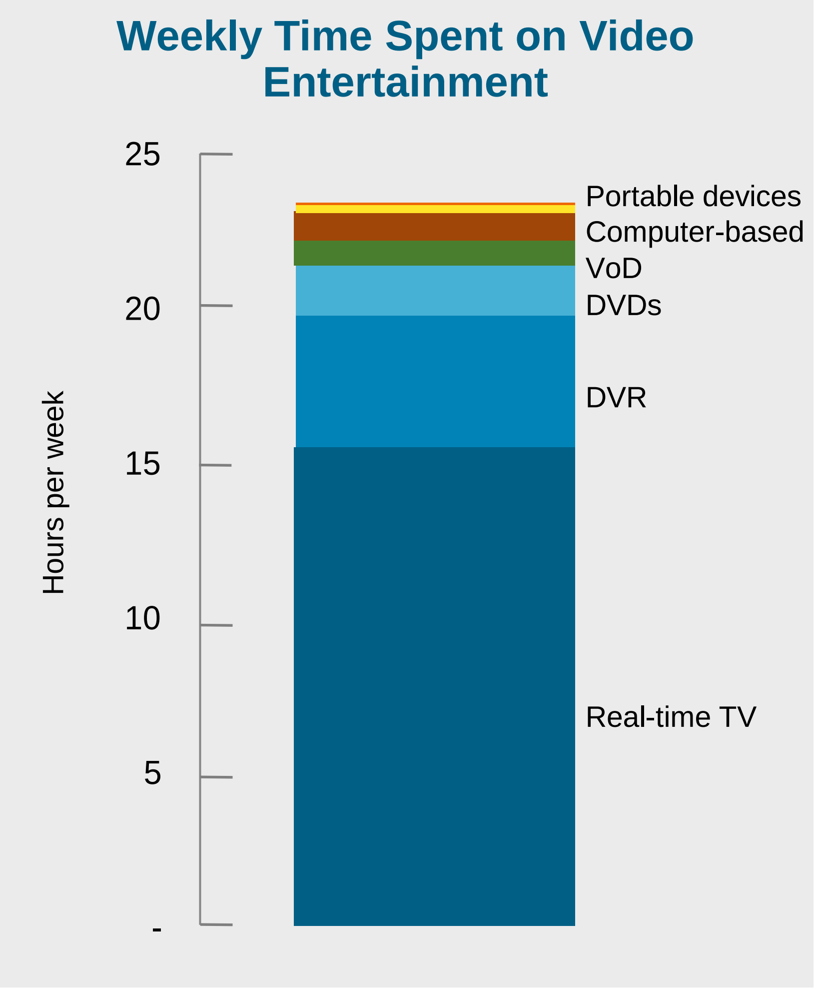


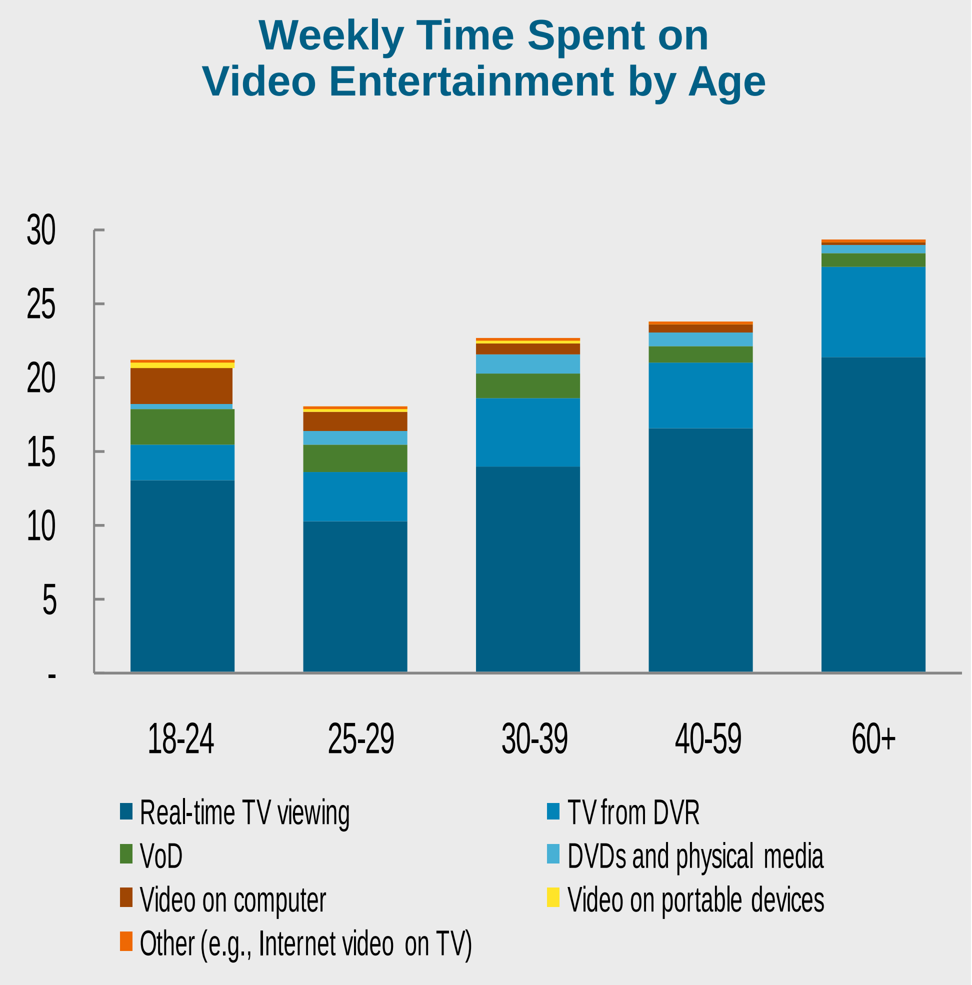
Base: U.K. broadband consumers with DVRs

Source: Cisco IBSG Connected Life Market Watch, 2010

TV-Content "Walled Garden" Is Cracking

Consumers Are Supplementing TV with Other Video





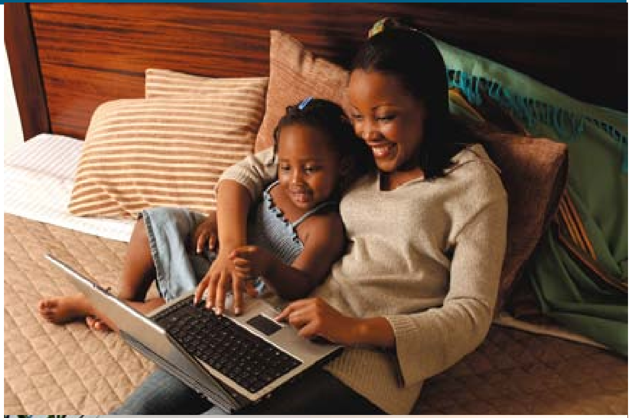
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. Broadband Consumers

U.K. Consumers Are Aware of Many Choices in Video Entertainment

In average month:

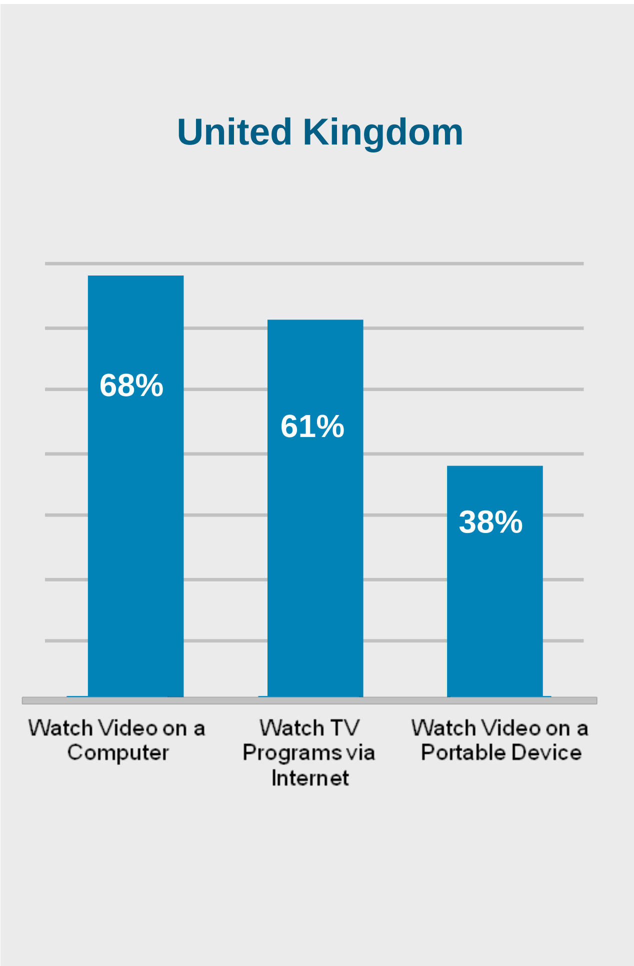
- 48% of broadband consumers use DVDs they have purchased from a store
- More broadband consumers watch Internet TV than VoD (35% vs. 19%)
- Broadband consumers watch more than 3 hours of video from Internet
- 22% of broadband consumers use gaming consoles to watch DVDs
- 12% connect their computers to TV
- 10% watch video on mobile phone

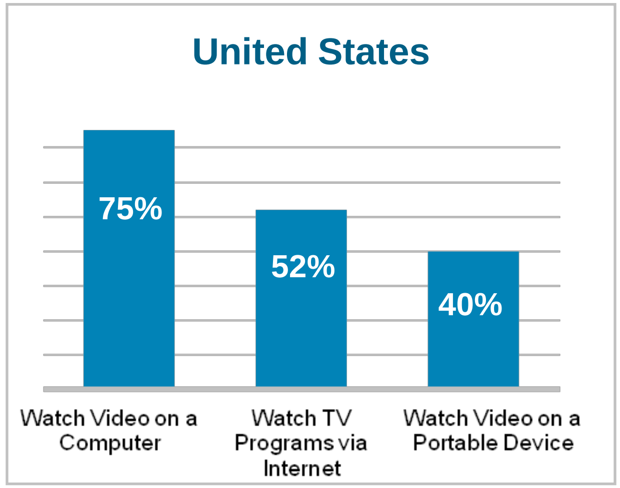


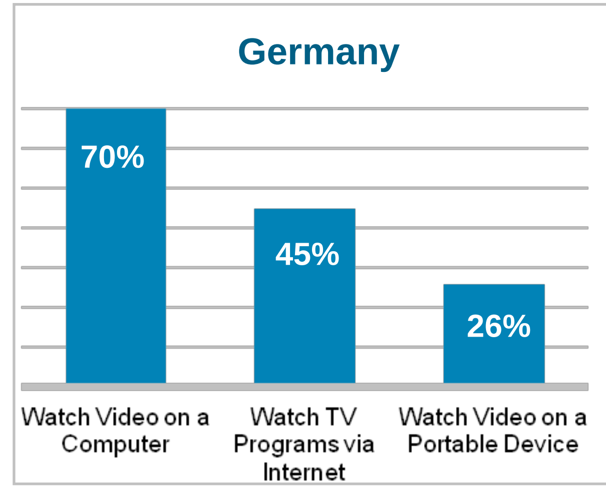
Source: Cisco IBSG Connected Life Market Watch, 2010

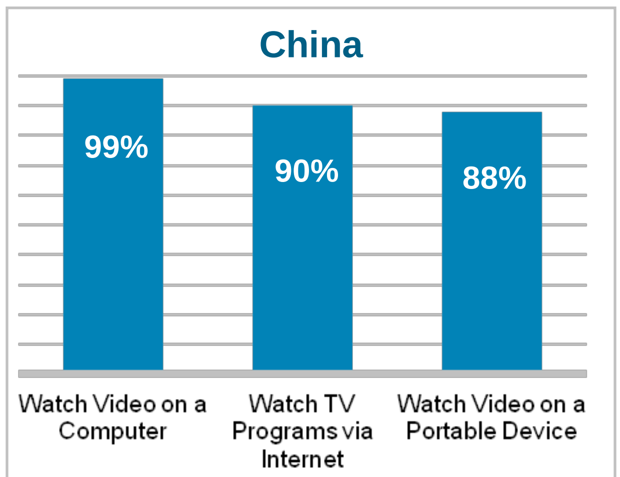
Consumers Are Exploring Alternative Video Entertainment

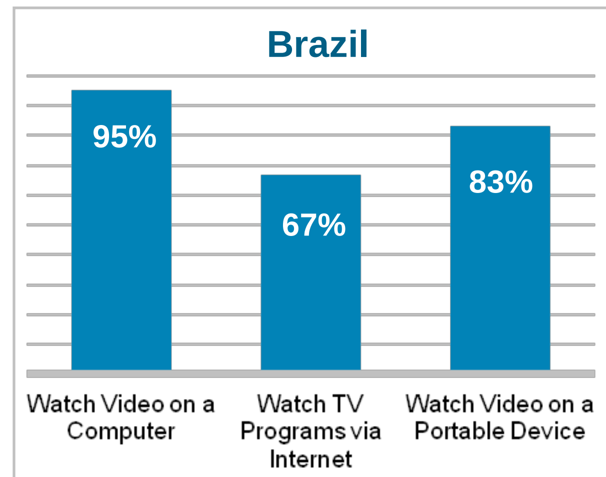
Percentage of Broadband Users that Use Alternative Video Sources











Source: Cisco IBSG Connected Life Market Watch, 2010

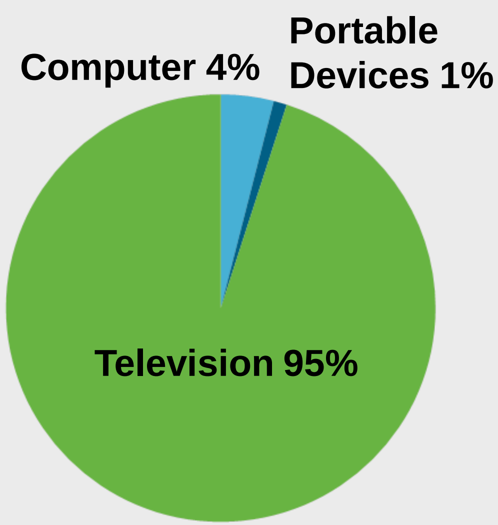
Today, TV Is Consumers' Preferred Device for Video Entertainment

Consumers Like Their Video Entertainment on TV

- 64% of U.K. broadband consumers have high-definition television at home
- #1 reason consumers don't watch more Internet video: they'd rather watch video entertainment on TV screen than on computer screen
- Younger audiences are spending more time watching video on a computer
- Average U.K. broadband consumer spends 54 minutes per week watching video on computer
- Average 18- to 24-year-old broadband consumer spends twice that time, watching 2.3 hours of video on computer per week

Device Used to Watch Video Entertainment

as portion of total viewing time



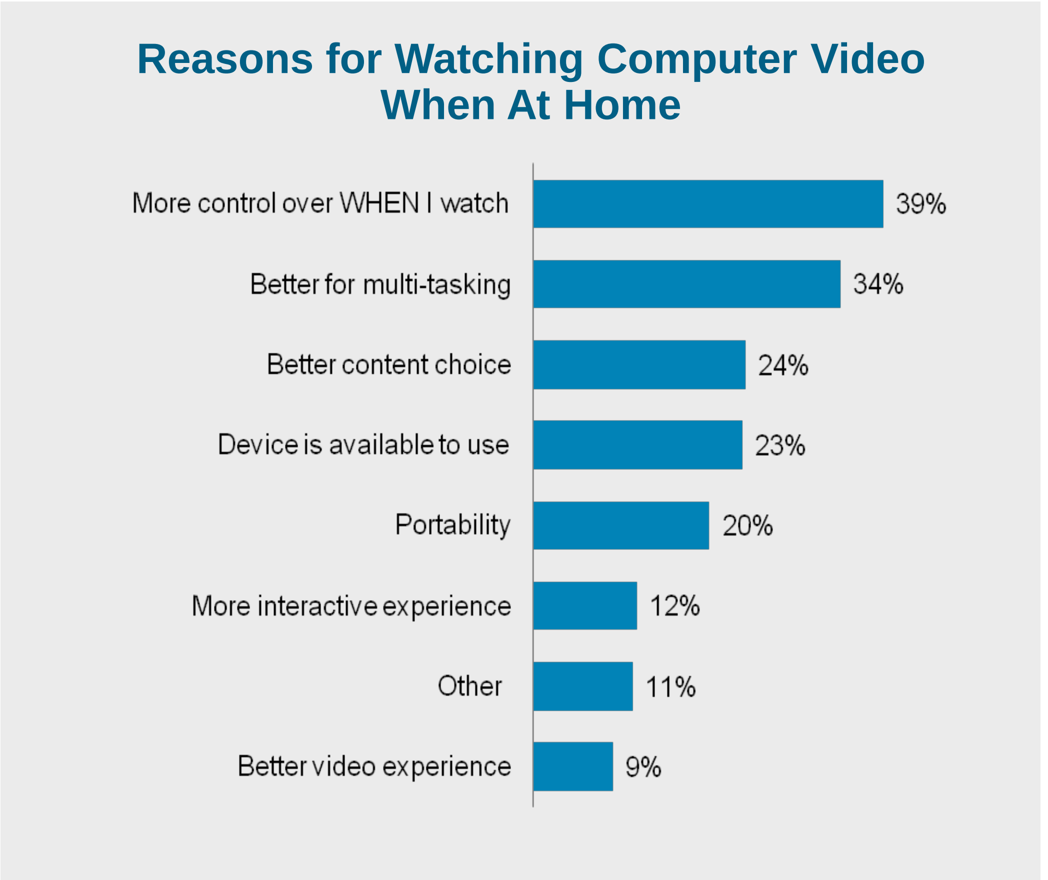
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers

Consumers Often Choose Alternative Devices, Even When TV Is Available

Average U.K. broadband household has 2.3 TVs, but most consumers still watch video on their computers in order to time-shift and multi-task

- 68% of respondents watch video on computers about 1 hour and 20 minutes each week
  - Most of this time (68%) takes place at home
  - 92% of 18- to 24-year-olds watch video on computer for 2 hours and 30 minutes / wk.
- 38% of respondents watch video using portable devices about 45 minutes each week
  - They are at home 54% of this time

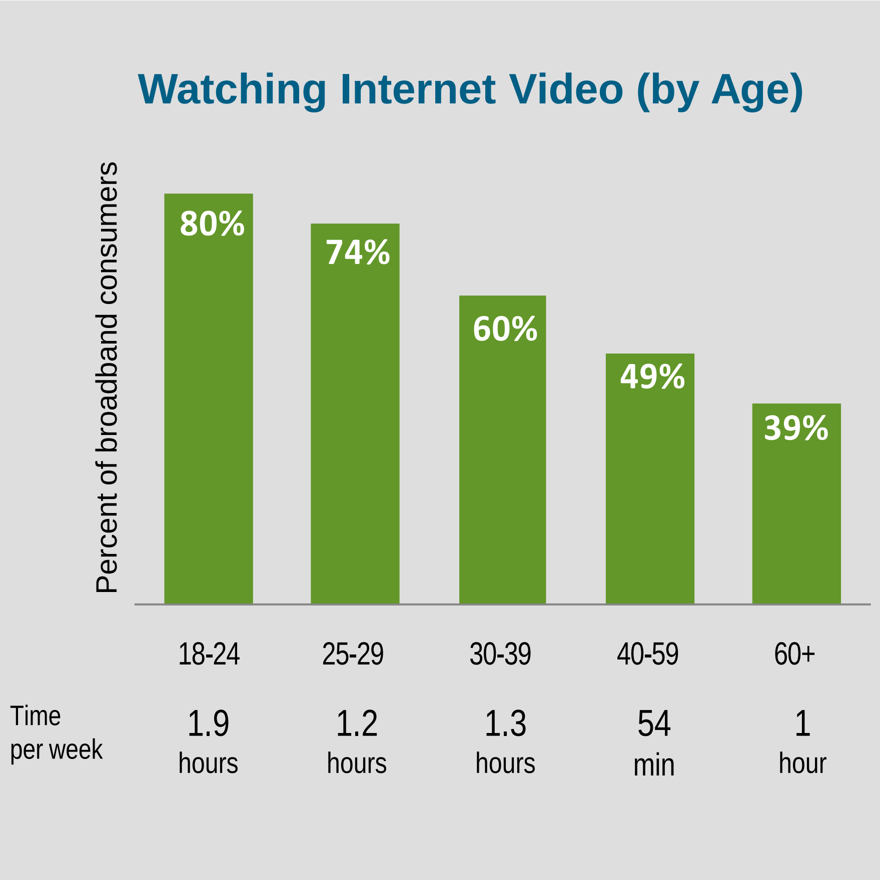


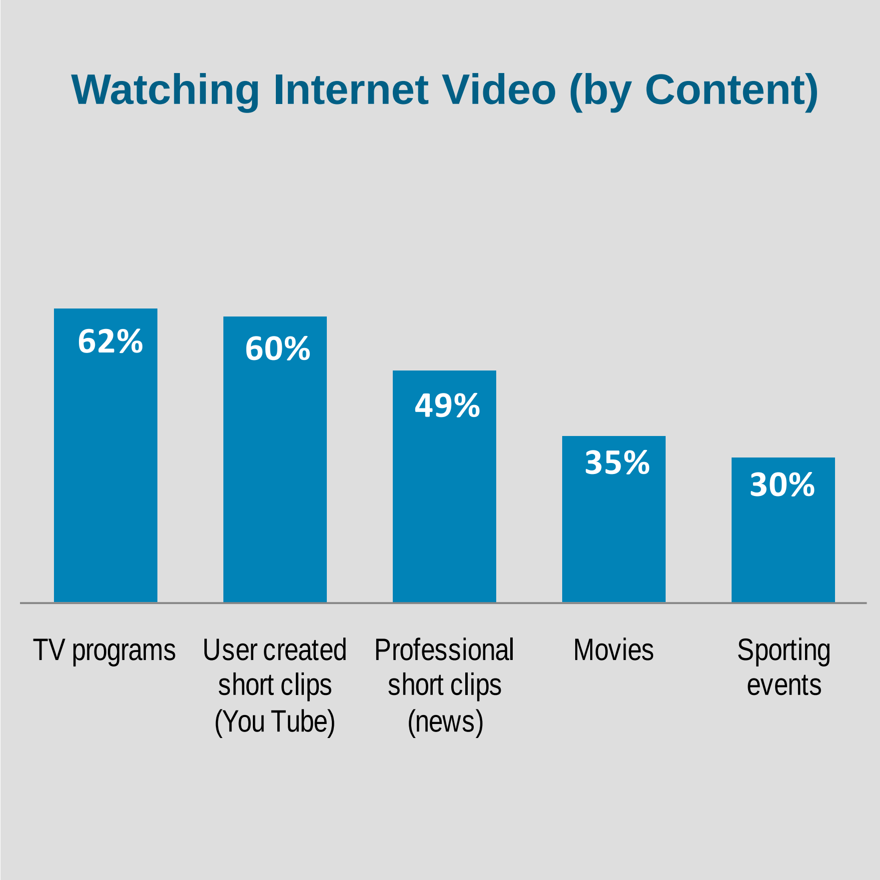
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: Watch video on computer at home

Consumers of All Ages Watch All Types of Internet Video Content

Internet Video Is No Longer Defined Only by Young People Watching YouTube





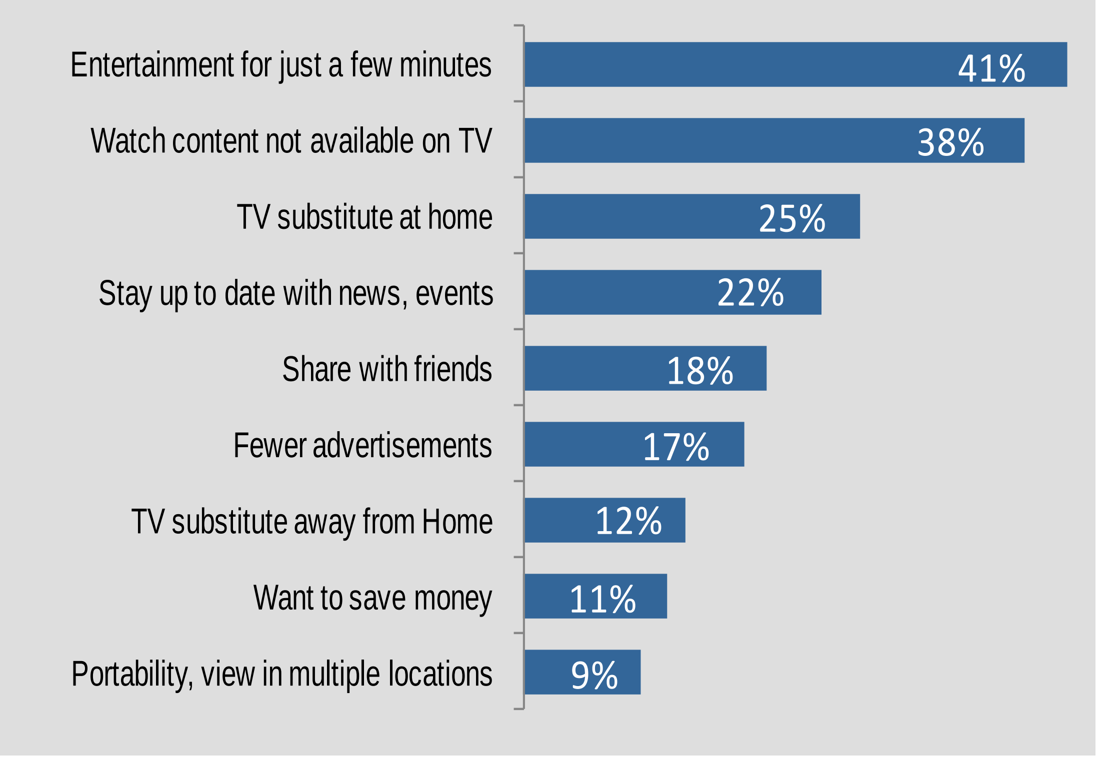
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Internet Video Has Different Value Proposition from Traditional TV

Reasons for Watching/Downloading Online Video

- Choice, control, and convenience are driving Internet TV usage
- “Snacking” and new non-TV content are key drivers



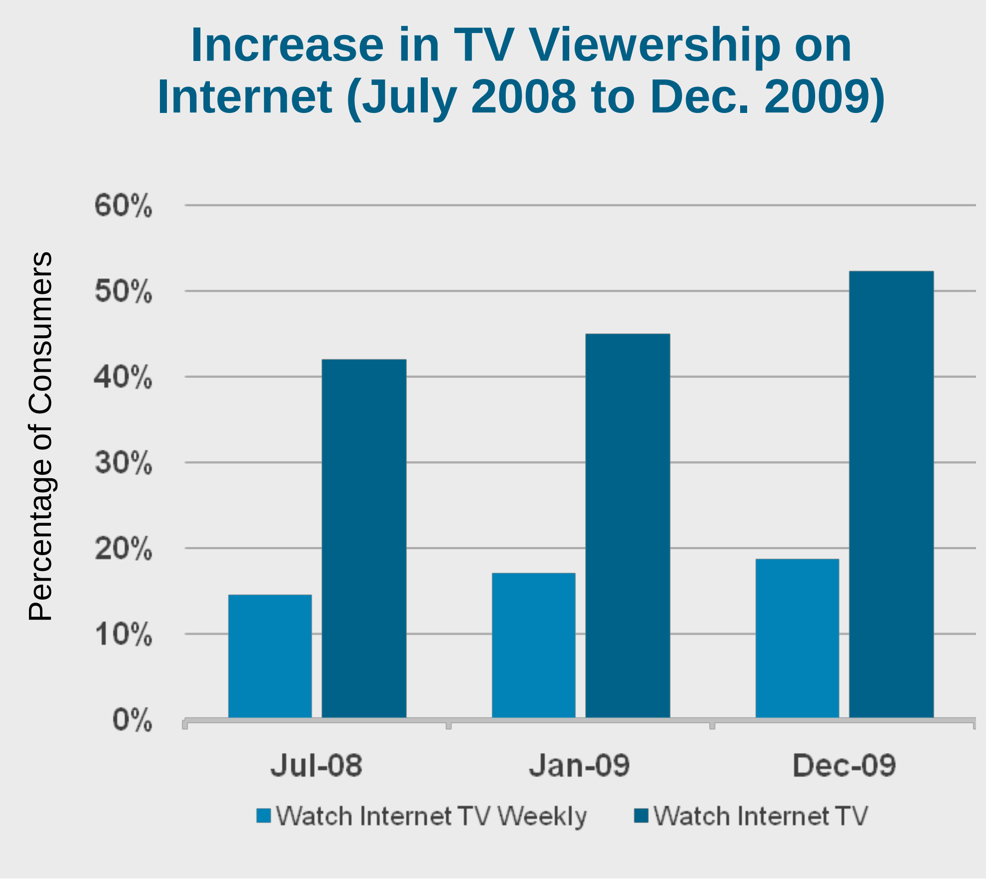
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=777

In U.S., Time Spent Watching Internet Video Is Growing

More than Half of Broadband Consumers Watch TV on Internet

- In 18 months ending in December 2009, there was about a 10% increase in number of people who watch TV on Internet
- comScore reports even more aggressive growth, with 10% increase in total online video viewers in last 6 months of 2009
- Time spent viewing online video has grown 17% since July 2008



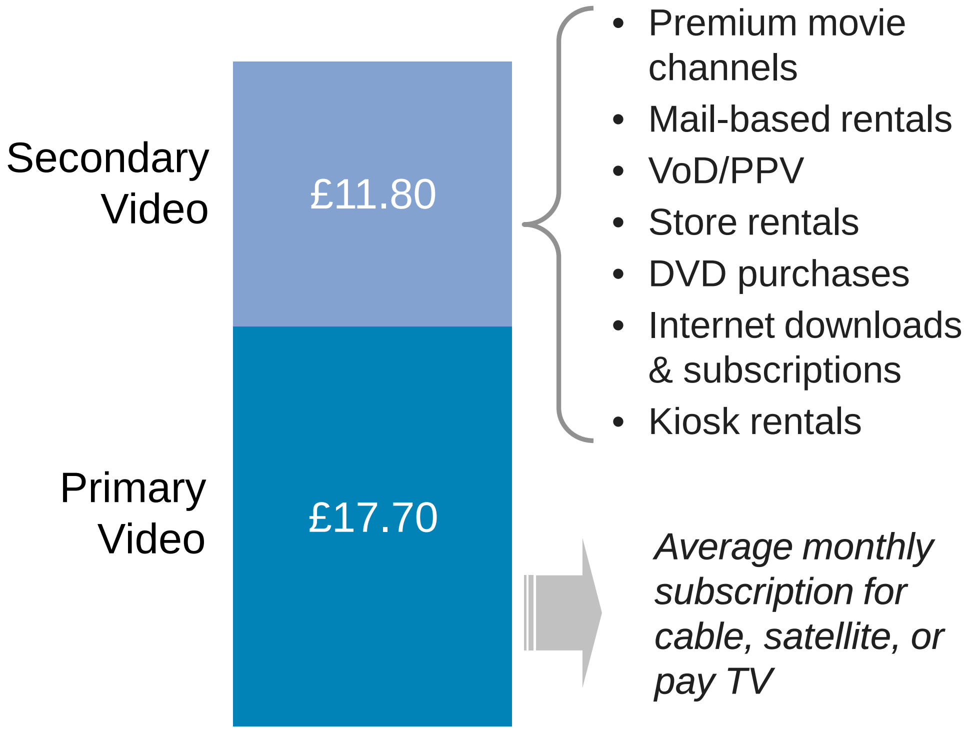
Source: Cisco IBSG Connected Life Market Watch, 2010; comScore, 2010

Base: U.S. broadband consumers

Nearly 40% of U.K. Consumer Video Spending Is for Supplemental Options

- Consumers supplement their basic TV experience with as many as 7 different sources of video
- Consumers can exert more immediate control over these *a la carte* options
  - — They have flexibility and can select the secondary video option that best suits the given situation
  - — In many cases, they can adjust their spending incrementally without entirely canceling or abandoning the service

U.K. Broadband Consumers' Monthly Video Spending



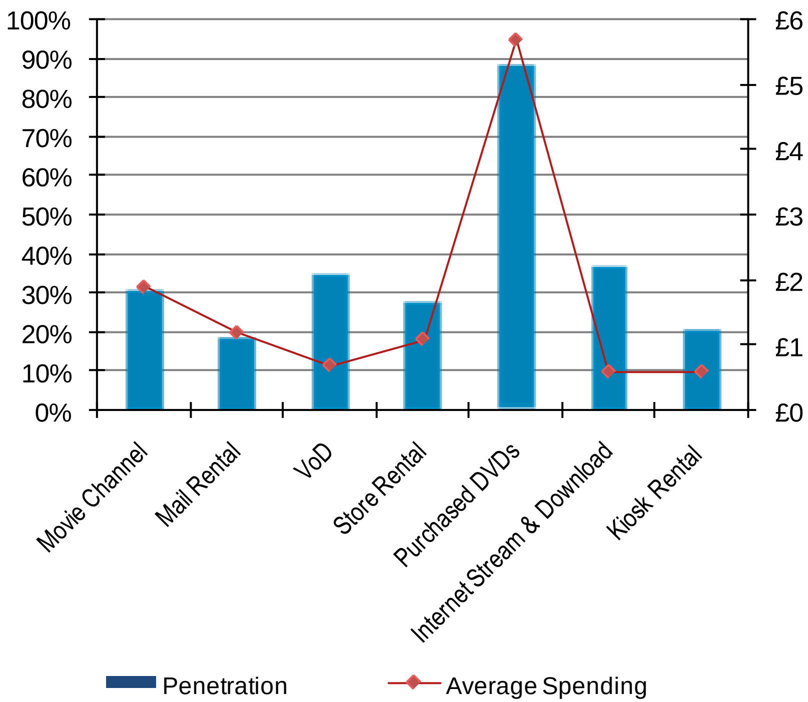
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Secondary Video Market Is Fragmented, With Opportunity for New Entrants

- Great fragmentation in secondary market (rentals, DVDs, VoD, downloads) makes it easier to displace than primary (e.g., cable/satellite)
- Consumers use multiple methods and few are attached to anyone
- VoD and Internet stream / download are biggest markets after DVD purchase
- High DVD purchase suggests desire to “own” media, which presents opportunity in digital online world

Penetration and Spending in Secondary Video Market, 2010

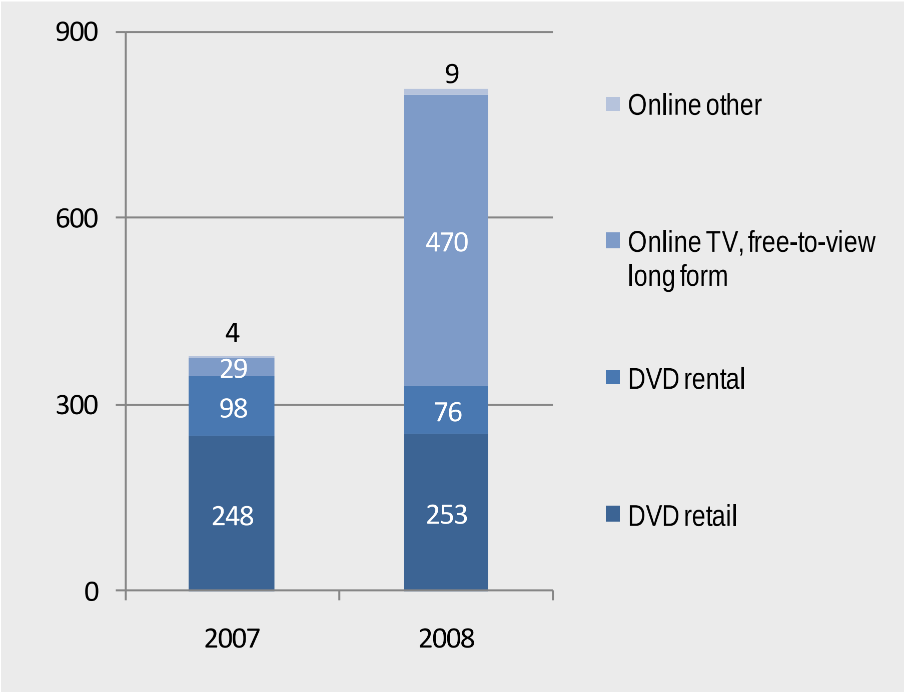


Source: Cisco IBSG Connected Life Market Watch, 2010

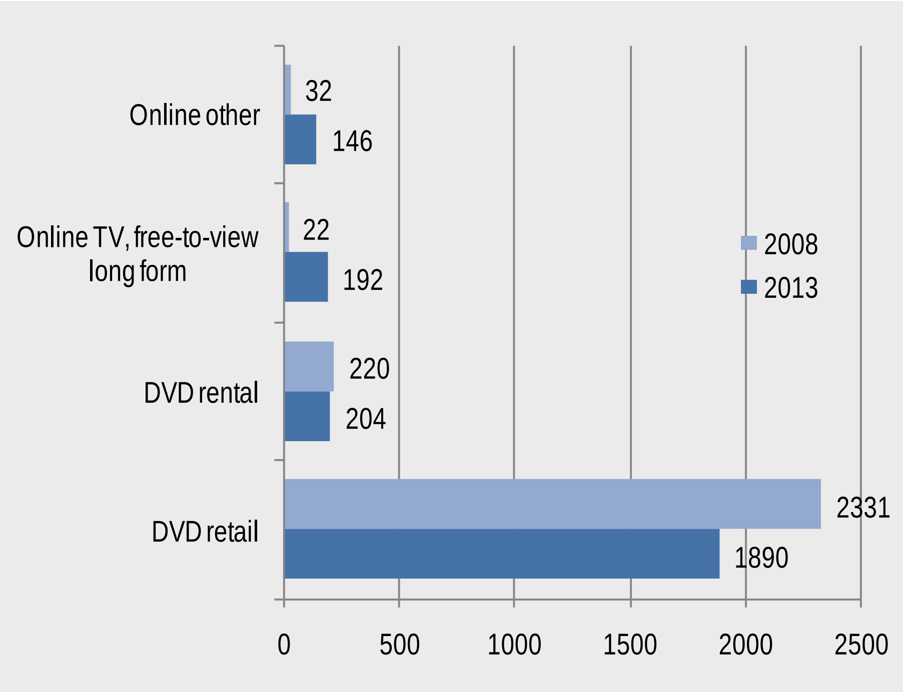
Base: U.K. broadband subscribers, N=1017

Spending in Secondary Video Is Shifting From Traditional Media to Internet

U.K. Secondary Video Transactions (m)



U.K. Secondary Video Revenues (£m)



- Secondary video transactions dominated by physical DVD in 2007
- iPlayer (& others) grew online TV free-to-view long form transactions significantly in 2008

- DVD retail in decline over time, but still dominates market
- Online TV free-to-view long form revenues all ad-based

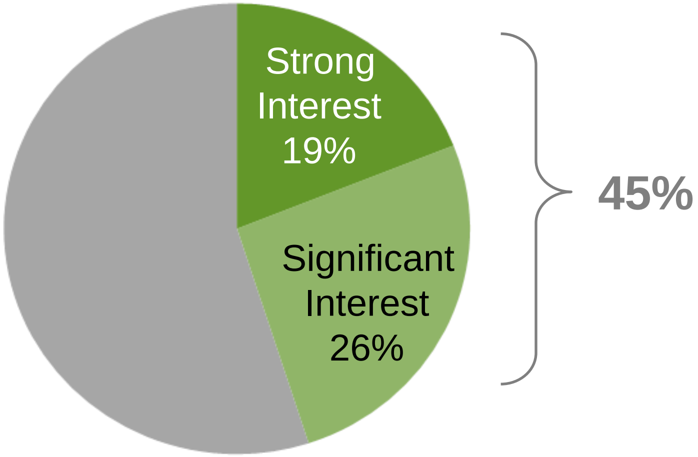
Source: Screen Digest, 2010

Impact of Transitions in Consumer Video

Consumers Are Ready for New TV Services Such as *Web Video to TV*

- Simple and easy to watch different types of Internet video on your TV instead of on your computer
- Use TV's remote control to find and select program, movie, or clip from an Internet site and watch it directly on your TV
- Enabled through device attached to TV; separate from your TV service
- Still need TV service to access television channels, video on demand, and other services offered by TV service provider

Consumer Interest in Service that Simply & Easily Enables Internet Video on TV



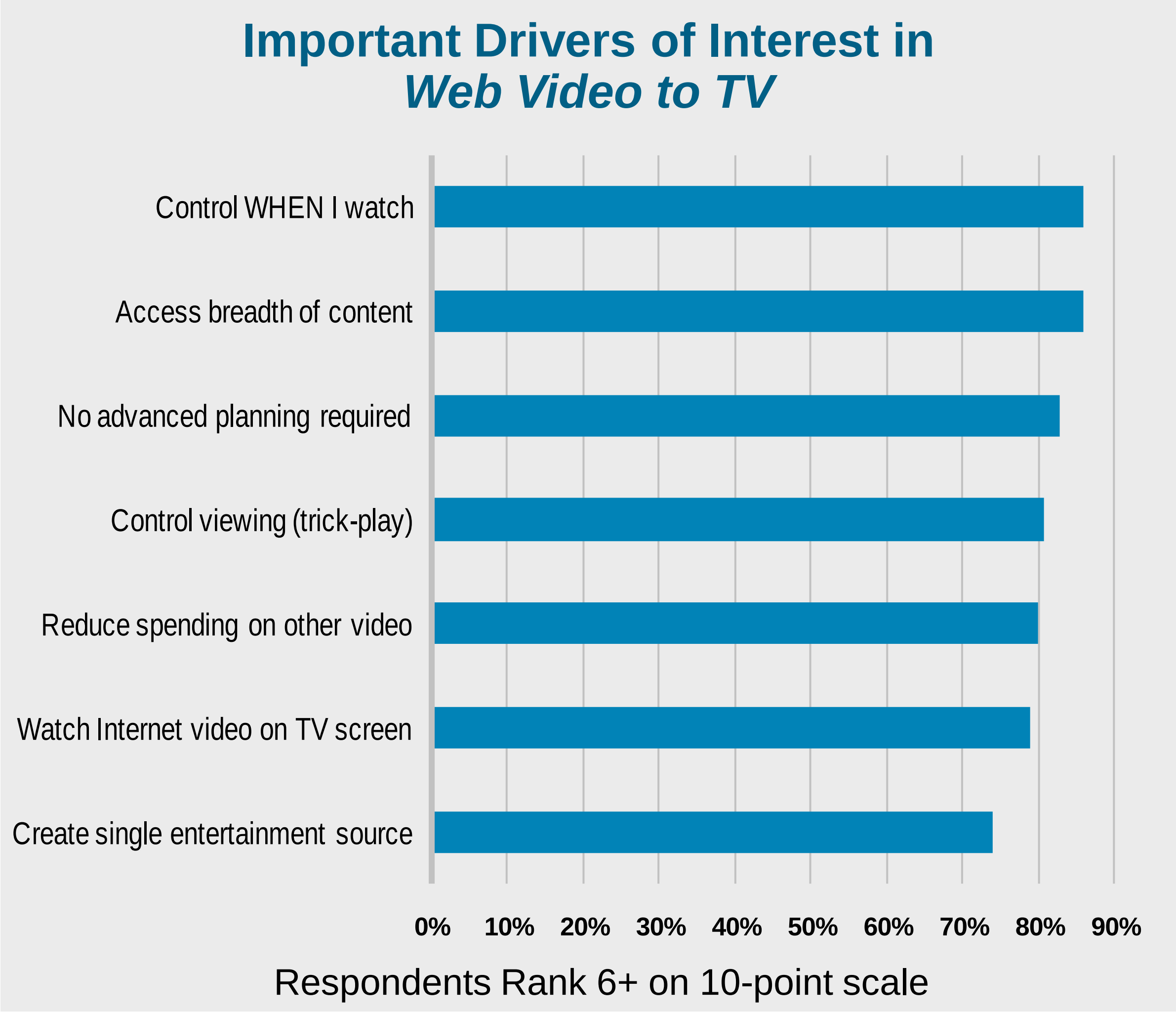
Q: How interested would you be in this offering, if it were priced at a level you consider reasonable?

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Web Video to TV Service Would Address Many Consumer Pain Points

- Moving Internet video to TV is important, but not only driver
- Consumers want control of when they choose to watch their video entertainment
- *Web video to TV* addresses many other consumer pain points, from access, to content, to total spending



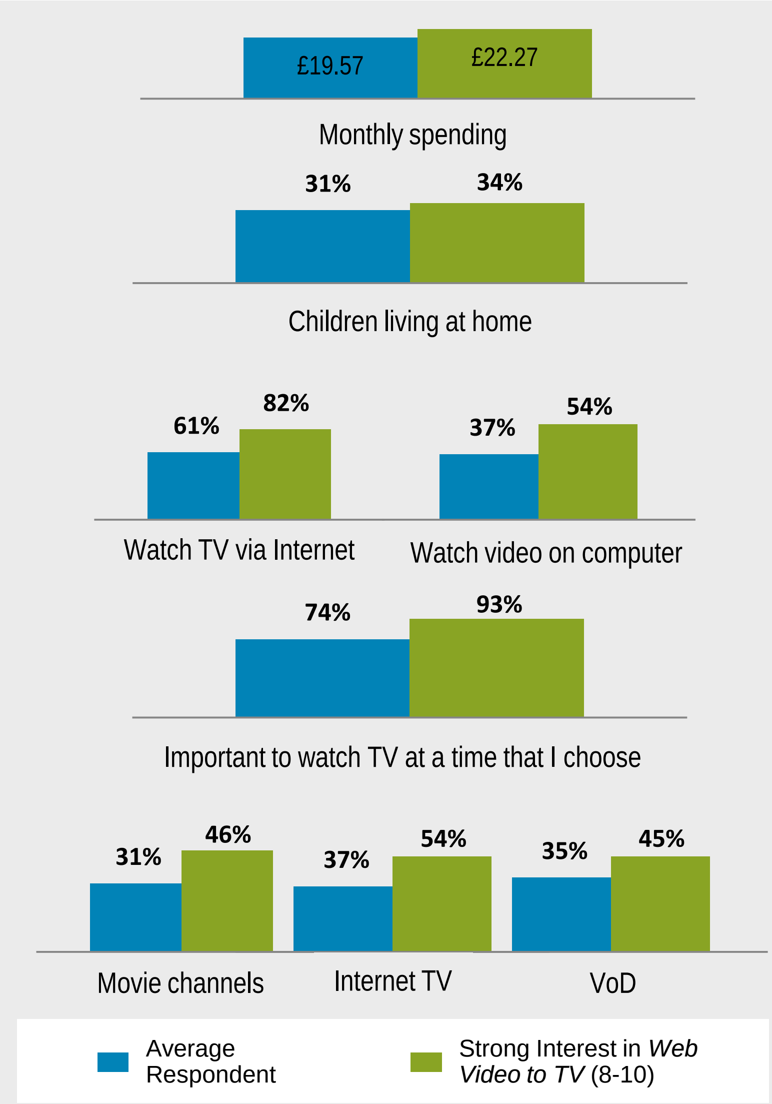
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: Any Interest in *Web Video to TV*

Concept Attracts Average Consumers Who Want To Control TV Experience

Profile of the initial target segment for *Web Video to TV:*

- Slightly above average TV usage and spending
- Slightly younger and more likely to have children living at home
- Have strong existing alternative TV behavior
- Much more likely to want to control their TV viewing and to choose viewing options that enable that control



Source: Cisco IBSG Connected Life Market Watch, 2010

Consumers Under 30 Are Less Tied to Traditional TV

Higher Use of Alternative

	18-24	25-29	30+
Watch video on computer *(hours per week)*	2.5 hours	1.4 hours	1.0 hours
Watch TV via Internet *(weekly or more)*	44%	25%	13%
Purchase movies via gaming console *(at any time)*	21%	19%	12%
Spending on online video *(monthly average)*	£1.00	£1.60	£0.44

Lower Use of Traditional

	18-24	25-29	30+
Watch TV on TV *(hours per week)*	18 hours	15 hours	23 hours
Real-time viewing *(as percent of total video entertainment)*	61%	58%	68%

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Some Groups Are Abandoning Traditional Pay TV

Internet Video Dominant

- 10% already use Internet video for majority of video viewing
- 20% of this Internet-video-dominant group do not subscribe to pay TV
- Another 13% of the Internet-video-dominant respondents would cancel pay TV if Internet video were simply accessible via TV
- This group is younger and more likely to live with roommates/parents and, in general, spends more time on Internet

A smaller group (3%) of consumers have no TV service at all.

They use only their computer and/or portable devices to meet their video entertainment needs.

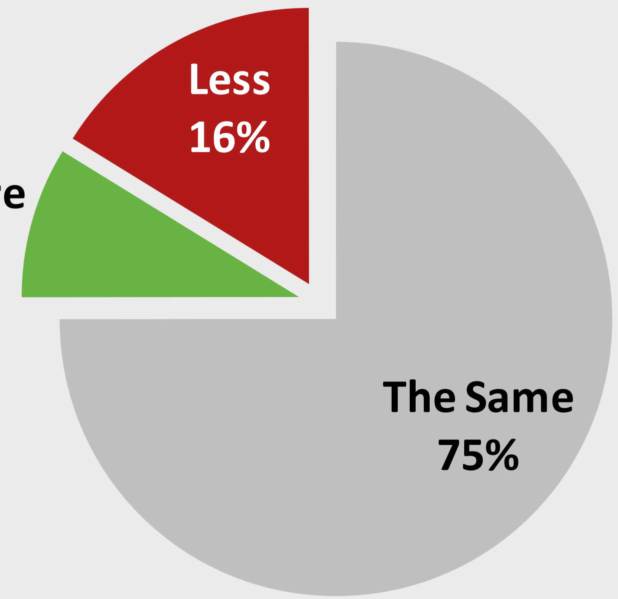
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

For Some Consumers, Internet Video Is Cannibalizing Traditional Linear TV

- For 75% of consumers, Internet TV viewing has not impacted time spent watching TV
  - —16% watch less on TV since they began watching Internet TV
  - — 9% watch more TV on television, supporting theory that Internet can find new user bases and/or help keep users loyal
- There is more cannibalization effect in younger consumers
  - —29% of Internet TV watchers aged 18-24 say they watch less TV on TV since they began watching Internet TV

Change in Consumer TV Time-Spend After Beginning To Watch Internet TV



Q. Since you began watching TV programs on the Internet, do spend *more, less, or the same* time watching TV programs on a television?

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. Internet TV watchers, N=625

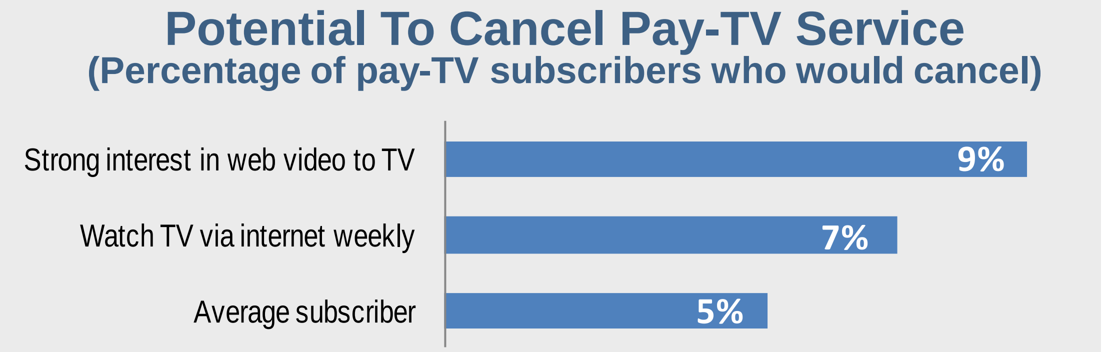
Internet Video Could Threaten Core SP Businesses

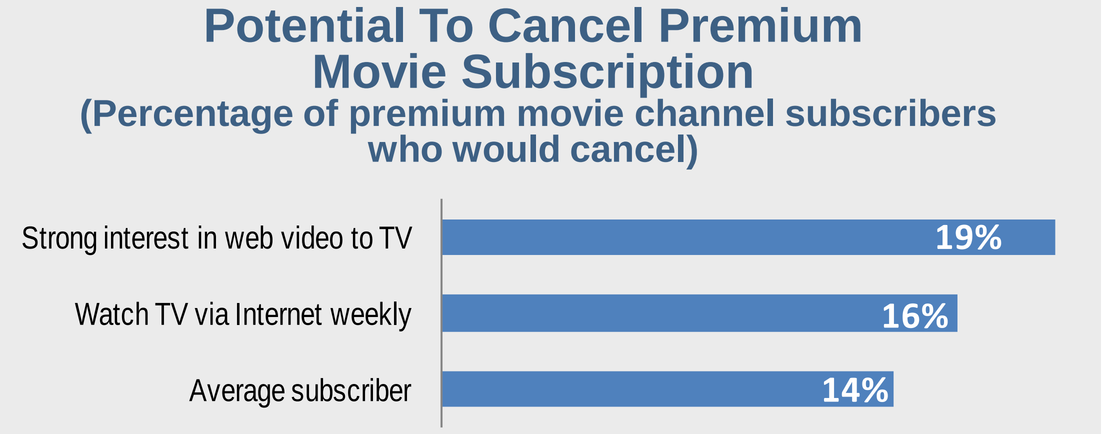
Greatest Threat Is in Secondary Video, but New Alternative Services Could Touch Core SP Markets

If you had…

- Free access to *web video to TV*
- Easy ability to watch all Internet video content on your TV
- On-demand access to prime-time TV shows, but not your regular TV service or your TV lineup as it airs . . .

…Would you make any changes to your current TV service package?



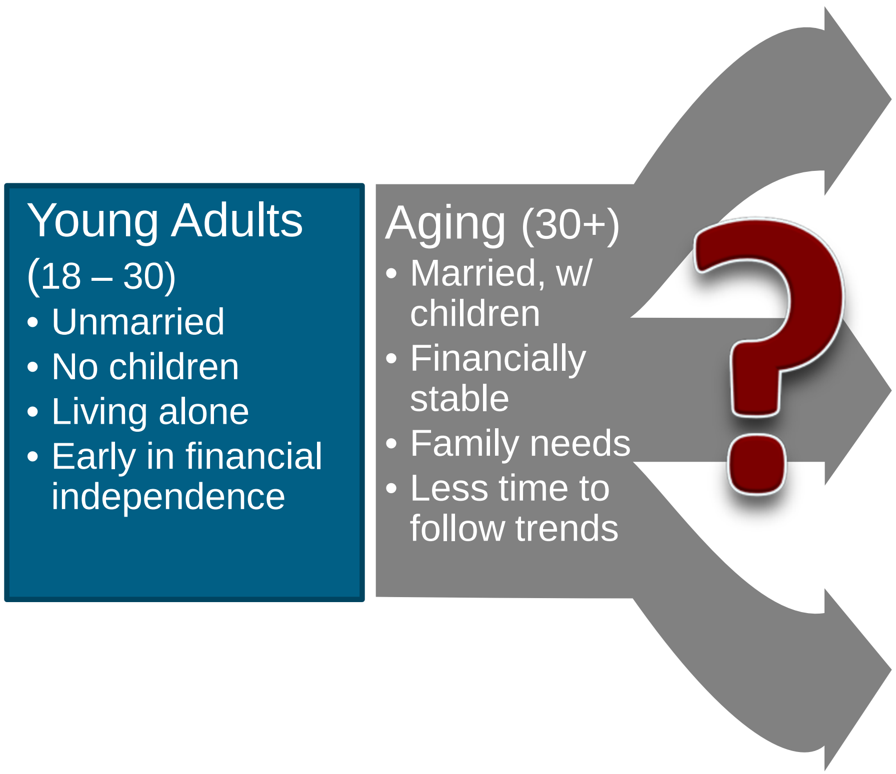


Source: Cisco IBSG Connected Life Market Watch, 2010

Evaluating the Long-Term Threat

Will 20-Somethings' Attachment to Pay TV Change as They Age?

Forecasting Future TV Behavior



What's Likely To Change

- More disposable income
- Investment in home technology
- Time spent at home
- Degree of "busy-ness"
- Household decisions are compromises based on interest and needs of multiple people

What's Likely To Stay the Same

- General level of technology comfort
- Awareness of options
- Desire for control, choice, and convenience

Market Evolution

- In future, will these customers have same options as in today's market?
- Will new options make it easier to source video from alternative sources and watch it at home on TV?

Source: Cisco IBSG Connected Life Market Watch, 2010

Going Forward:
Key Trends To Watch

1

Trends To Watch: Moving Internet Video to the TV

Migration to TV

Latest TVs & consumer electronics products make it easier to watch Internet video on TV

- At least 1 HDMI input is now standard on all new digital TVs *(In-Stat)*
- 24% of U.K. broadband consumers have already connected their computer to the TV
- In 2009, more U.K. broadband users viewed TV programs on the internet (62%) than UGC (60%)
- 12% of iPlayer requests are via game consoles *(BBC)*

As Internet video moves to the TV, usage patterns will shift significantly

- Today, TV is the preferred viewing device
- #1 reason consumers don't watch more Internet video is because they'd rather not watch their entertainment on a computer
- As consumer electronics offers make it easier to access Internet-sourced video on TV, usage patterns could shift rapidly.

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Trends To Watch: Quality Can Impact Internet Video Use

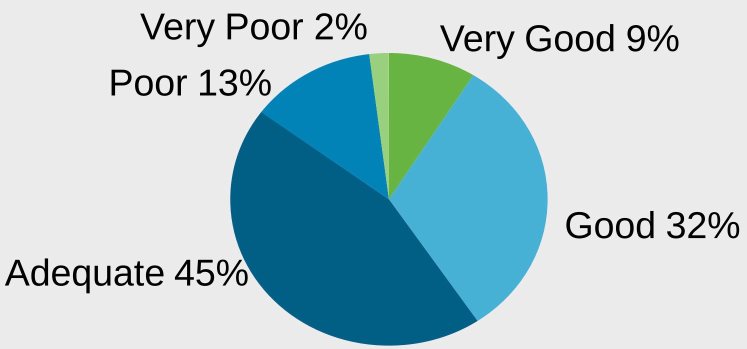
2

Impact of Quality

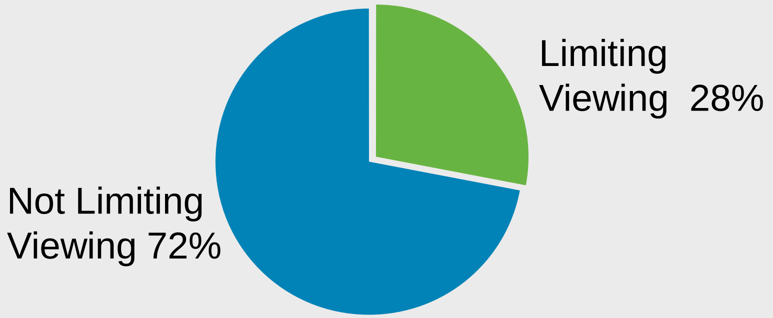
Quality Will Play Role in Evolution of Alternative TV

- Only 15% see quality of TV video on Internet as poor today
- This positive perception, however, may be related to low expectations:
  - 28% of Internet TV viewers say that the quality limits them from watching more video on the Internet
  - As content breadth and control capability improve, quality will rise in importance as a competitive differentiator

Consumer Perception of Quality of Internet-Based TV Viewing Experience



Consumers Limiting Internet Video Viewing Due to Video Quality

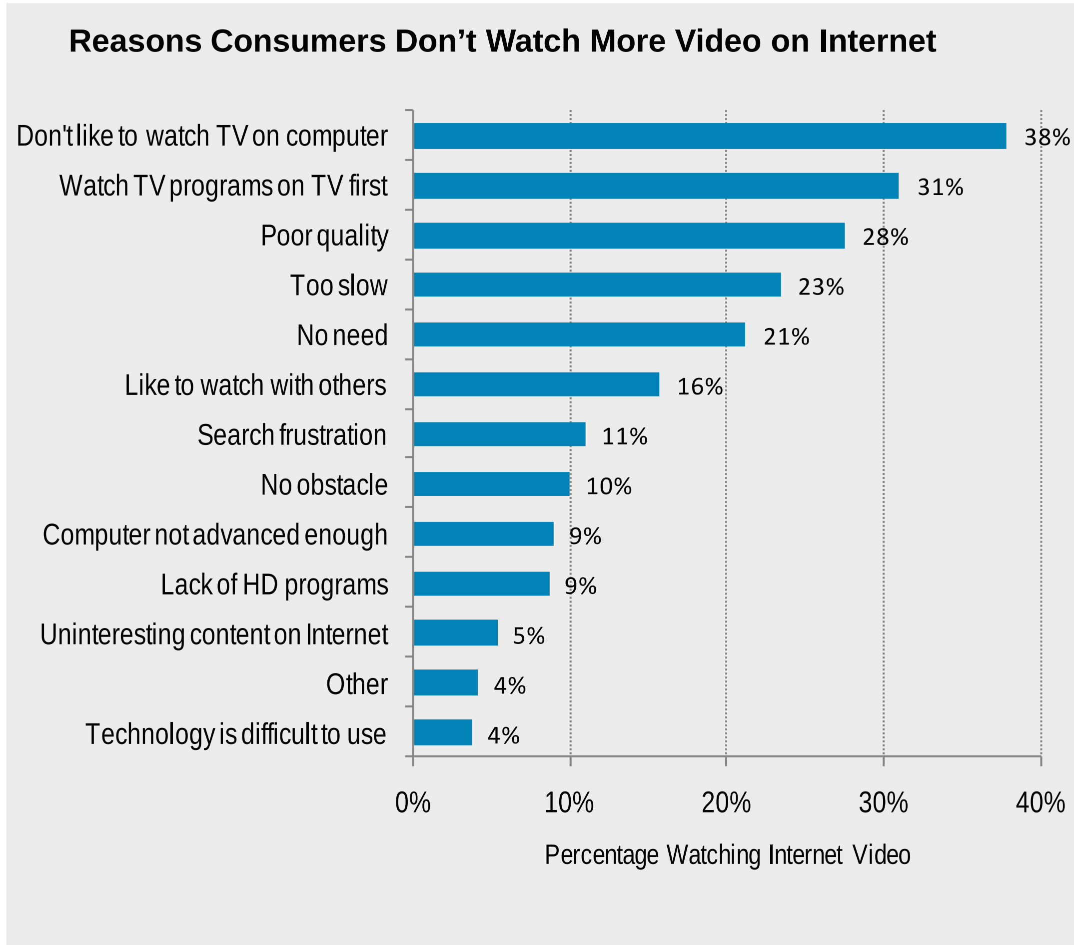


Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. Internet TV Viewers

Impact: Quality Improvements and TV Accessibility Could Boost Internet Video

- Major protections for traditional pay TV include screen preference, business models that enforce time delays, and video quality
- The challenge is that these protections are not fully in the control of service providers
- Content distribution policy changes and technology developments can drastically impact consumer behavior



Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. Internet Video Users

3 Trends To Watch: TV Screen Becomes New Internet Screen

TV Internet Access

As widgets proliferate, consumers may come to recognize TV as an access point to Internet	▪ In January 2009, Yahoo! announced distribution partners for its TV widgets. Today, more than two dozen widgets are available from Vizio, Samsung, LG, and Sony ▪ Three weeks after Verizon FiOS launched updated widgets, they reported that "millions" of Tweets and Facebook gallery photos had been viewed by FiOS TV subscribers on TV
2010 will be learning year for consumers	▪ Today, only 1 out of 3 consumers expresses interest in accessing Internet content from the TV ▪ In aided discussions with specific use cases, interest grows
Market impact may not be in competitive differentiation, but in consumer perception	▪ Cisco IBSG expects competitive differentiation in GUI and general ease of use versus exclusive widgets or applications ▪ The significance of TV widgets may not be in the competitive edge they deliver, but in their role in fundamentally changing the way consumers view their TV screen—opening the door for Consumer TelePresence and other services

Source: Cisco IBSG Connected Life Market Watch, 2010; Company Reports

4 Trends To Watch: Introduce Social Behavior into TV

TV Social Behavior

"TV is fundamentally a social experience, and the only reason people haven't engaged socially with their TV screens to date is that they haven't had a convenient way to do so."
—**Forrester, August 2009**

4 Potential Social TV Developments

Applications that….

1. Enhance a live group experience
2. Create a "virtual" group experience, watching TV with people in other locations
3. Foster interaction with the TV programming itself (decide plot lines, vote on reality winners)
4. Create a peer recommendation engine and commentary on viewing

TV Viewing Behavior Is Complex

- People watch TV alone about half the time
- People multi-task while watching TV about 40% of the time

The Value of Social TV Is Unclear to Today's Consumer

- Only 16% say the desire to watch with others prevents them from watching more Internet TV
- Only 19% of broadband consumers express interest in friend-to-friend social TV service

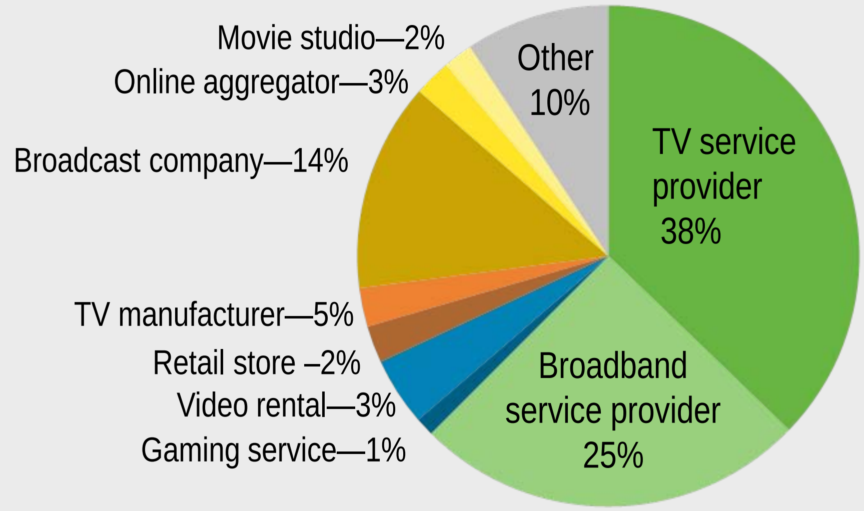
Source: Cisco IBSG Connected Life Market Watch, 2007, 2010; Forrester, 2009

Going Forward:
Service Provider Opportunities

SPs Are Strongly Positioned To Deliver Internet Video to Consumers

- 66% of consumers prefer an SP to deliver *web video to TV* service
- SPs can address consumers' concerns, including up-front cost and quality
- SPs should work with retailers to optimize offers that require consumers to buy separate device
  - —56% would buy the enabling device at a consumer electronics or Internet retailer
- This preferred position could change quickly if any manufacturer, retailer, or aggregator launches aggressively

Preferred Provider for *Web Video to TV*
United Kingdom



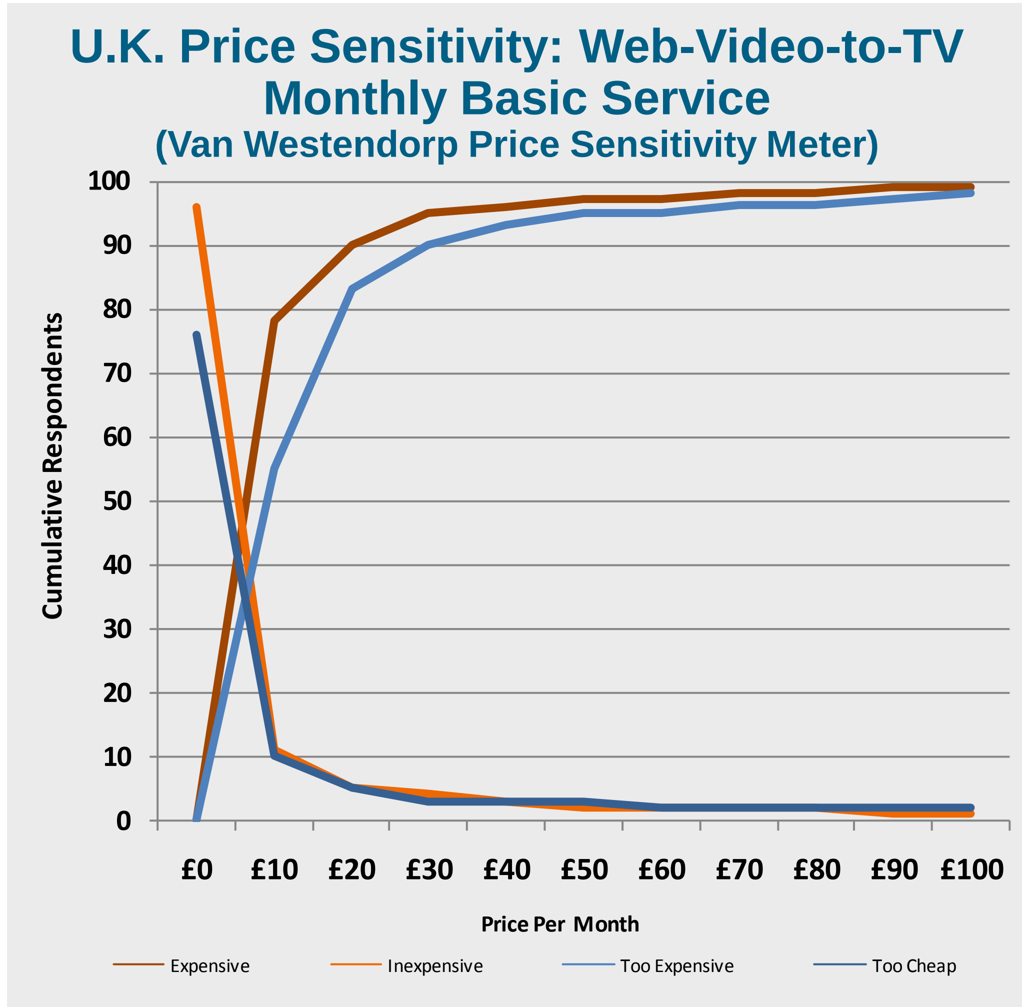
Base: Interest in *Web Video to TV*

Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

Service Providers Have Multiple Ways To Monetize Web-Video-to-TV Services

- Consumers are willing to pay directly for *web video to TV*
  - —Range of acceptable pricing for interested consumers is between £5-£7 per month
- Consumers would upgrade their broadband to gain access to *web video to TV*
  - —42% of broadband consumers would upgrade their broadband service for an additional £5 per month, if *web video to TV* were available for free with the premium broadband

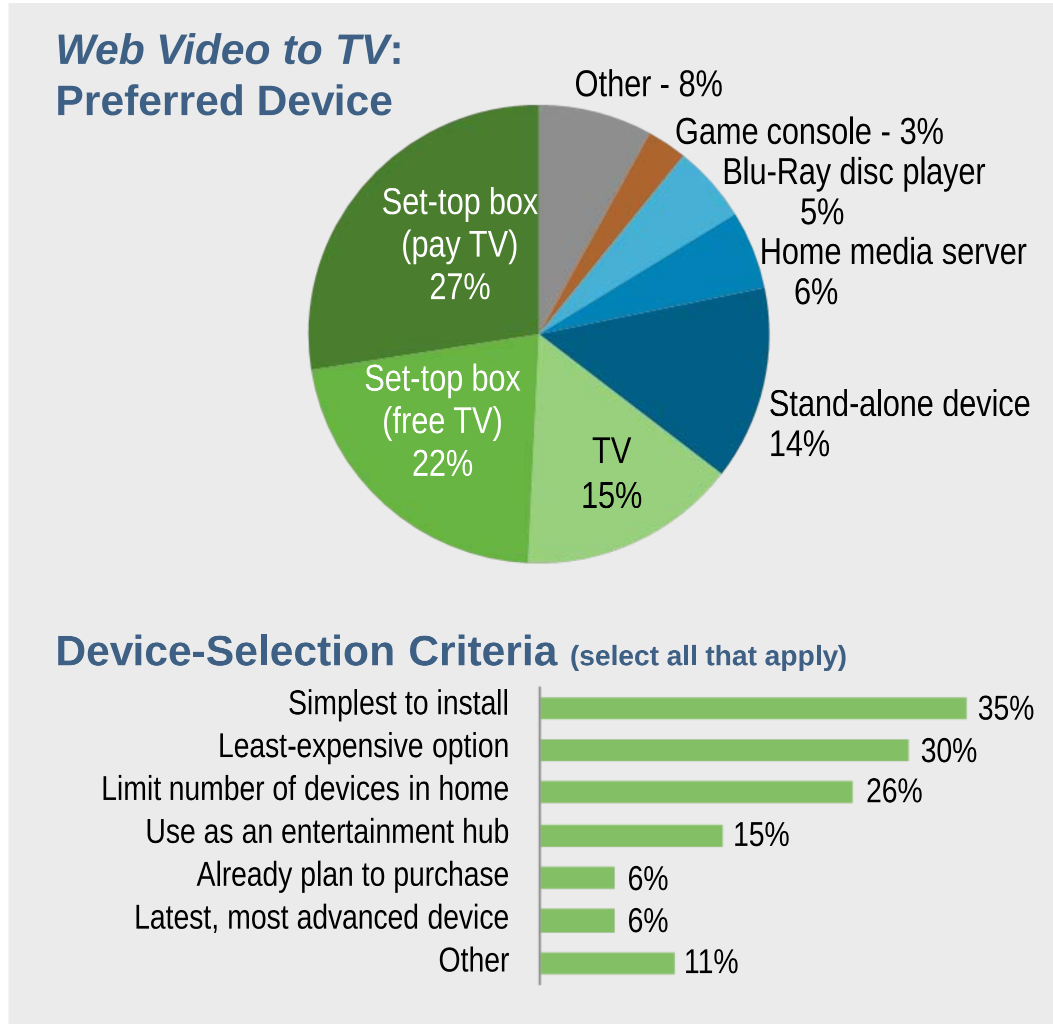


Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

CE Manufacturers Do Not Currently Have Edge in Device Choice

- Consumers prefer to enable their *web-video-to-TV* service through stand-alone service-specific devices such as set-top boxes (from free or pay-TV providers)
- Simplicity and cost are consumers' key purchase criteria
- Ease of installation was biggest factor for 35% of consumers, with cost (30%) second most important



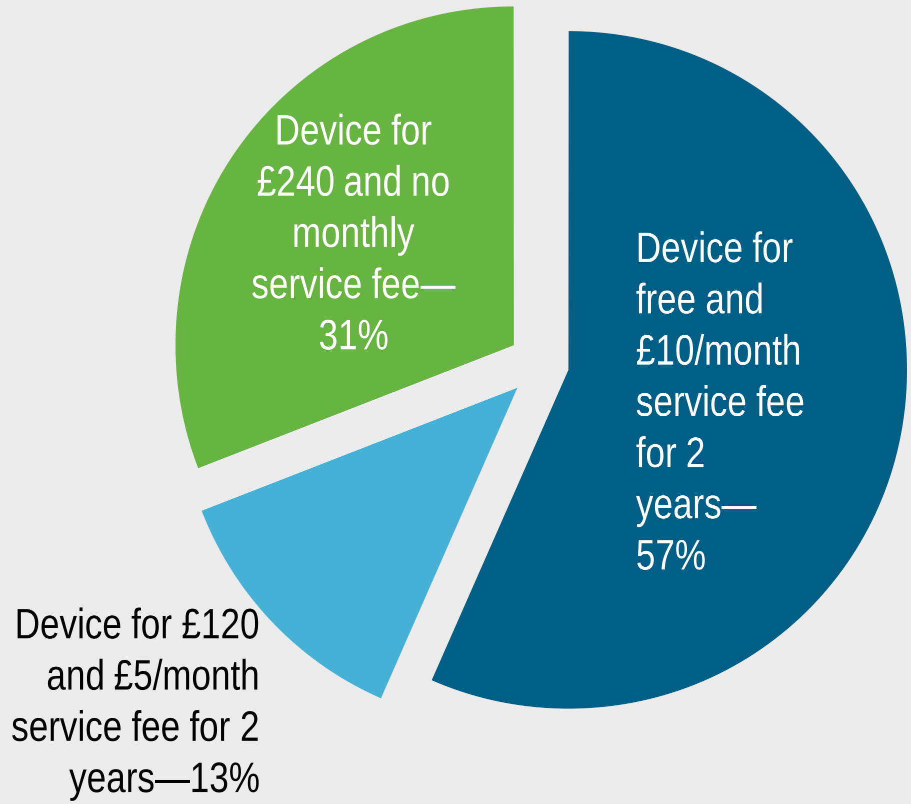
Source: Cisco IBSG Connected Life Market Watch, 2010

Base: Interest in *Web Video to TV*

U.K. Consumers Prefer Purchase Models With No Up-Front Costs

- Given a choice, most U.K. consumers would prefer a “free” device and pay a monthly fee
- No monthly fee was attractive, but not with a £240 up-front charge
- This mirrors other U.K. set-top box purchasing offers and behavior
- Service providers have opportunity to capture market share with bundled offer

Preferred Purchase Model for *Web Video to TV*—United Kingdom



Source: Cisco IBSG Connected Life Market Watch, 2010

Base: U.K. broadband subscribers, N=1017

SPs Have Many Options in Developing Their Advanced Video Strategy

Consumer Interest in Select Advanced Video Service Concepts

Connected Home Move Digital Content Around the Home	Service that makes it easy to move digital content such as photos, music, and videos **from** any TV or computer in the home **to** any other TV or computer in the home	46%
Select Camera Angles	Feature that enables you to choose from different camera angles to view your show	27%
Social TV Friend-to-Friend Chat	"Friend-to-Friend TV" feature that enables you to invite friends to participate in interactive chat sessions while you watch TV and to share the same viewing experience	19%
Interactive TV Retrieve More Info	Feature that enables you to use your TV to retrieve information and videos about the program you are watching, while you are watching it	33%
Internet Widgets	Service that provides quick access to a selection of Internet sites directly from your TV	37%

Source: Cisco IBSG Connected Life Market Watch, 2010

Consumers rating interest 6+ on a 10-point scale

Service Provider Next Steps: Preparing for Video Disruption

- Consumer video entertainment is poised for significant disruption
- As incumbents, SPs are strongly positioned, but many factors are outside their control
- To prepare for the disruption, SPs can:

1. Develop services, such as web video to TV, that provide consumers with more control
2. Stay ahead of changes in the video experience, such as interactivity and TV-based Internet access
3. Fully take advantage of monetization options to capture and retain value across the complete portfolio and full customer lifecycle

Source: Cisco IBSG Connected Life Market Watch, 2010

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