

Cutting the Cable Cord

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OLLI Conscious Aging

November 7, 2018

Objectives

- Survey the changing landscape of video content and delivery
- Learn the factors to consider in deciding whether to cut the cord
- Compare the options: OTA + popular streaming services and devices
- Learn how easy it is to connect a streaming device
- Provide tips and additional information sources to help guide your individual journey to cutting the cable cord

- *Please turn off or silence your devices*
- *Take questions at the end*
- *One-page handout contains key material from the talk*
- *Slides will be posted on the OLLI member website by end of week*

My Journey to Cutting the Cord

- Relentless increases in monthly TWC cable bill (+27% in 2 years)

Jan 2014	\$153
Jan 2015	\$171
Apr 2015	\$176
Dec 2015	\$180
Jan 2016	\$182
Feb 2016	\$195

- Only watched a small fraction of the 100+ cable channels available
- Cut the cord in March 2016

TWC internet	\$71
Hulu	\$12
Showtime	\$11
HBO	\$12
	\$106

- Added more streaming services and transferred landline to IP phone

Amazon Prime	\$10	Frontier land line	-\$41/mo
Netflix	\$11	Ooma IP phone	+\$5/mo

Current Video Media Environment

- Monthly cable bills continue to rise, obfuscated by bundling
 - Spectrum (TWC): typical \$120-\$150/mo, \$65-\$105 cable only
 - DirecTV: \$78-\$181/mo cable only, AT&T U-verse: \$81-\$147/mo cable only
- Still need a cable company for internet service
- Over the Air (OTA) broadcasts are a viable option in our area
- Streaming devices are cheap and getting easier to use (voice control!)
- Growing choices for streaming content, including live TV
- Streaming services adding features/content – and price increases
- Boom in original streaming content - some with critical acclaim
- More on-demand and less “appointment” viewing
- Many shows “drop” an entire season, not weekly episodes

Original Streaming Content Emmys

- Netflix
 - House of Cards
 - Orange is the New Black
 - The Unbreakable Kimmy Schmidt
 - Grace and Frankie
 - Stranger Things
 - The Crown
 - Black Mirror
- Hulu
 - Handmaid's Tale
 - The Beatles: Eight Days a Week
- Amazon Prime
 - Transparent
 - The Marvelous Mrs. Maisel

Assessing Your Cable Viewing Habits

- What types of content
 - major networks, PBS, other...
 - genre: drama, comedy, news, documentary, sports, arts, ...
 - topics: cooking, home improvement, travel, nature, for children, ...
 - movies: classic vs. more recent
- Multiple viewers? Different tastes? With (very) young viewers?
- Channel hopper vs. “appointment viewing” vs. binge watching
- How many hours per week – to estimate cost per viewing hour
- Make two lists (e.g., in a spreadsheet so it can be sorted)
 1. Current viewing log of all household members for several weeks
source/network, title, date or #times watched, who, hours (optional)
 2. Watch list of future and/or new content
source/network, title, #seasons, #episodes, episode length







Over-the-Air (OTA) Reception

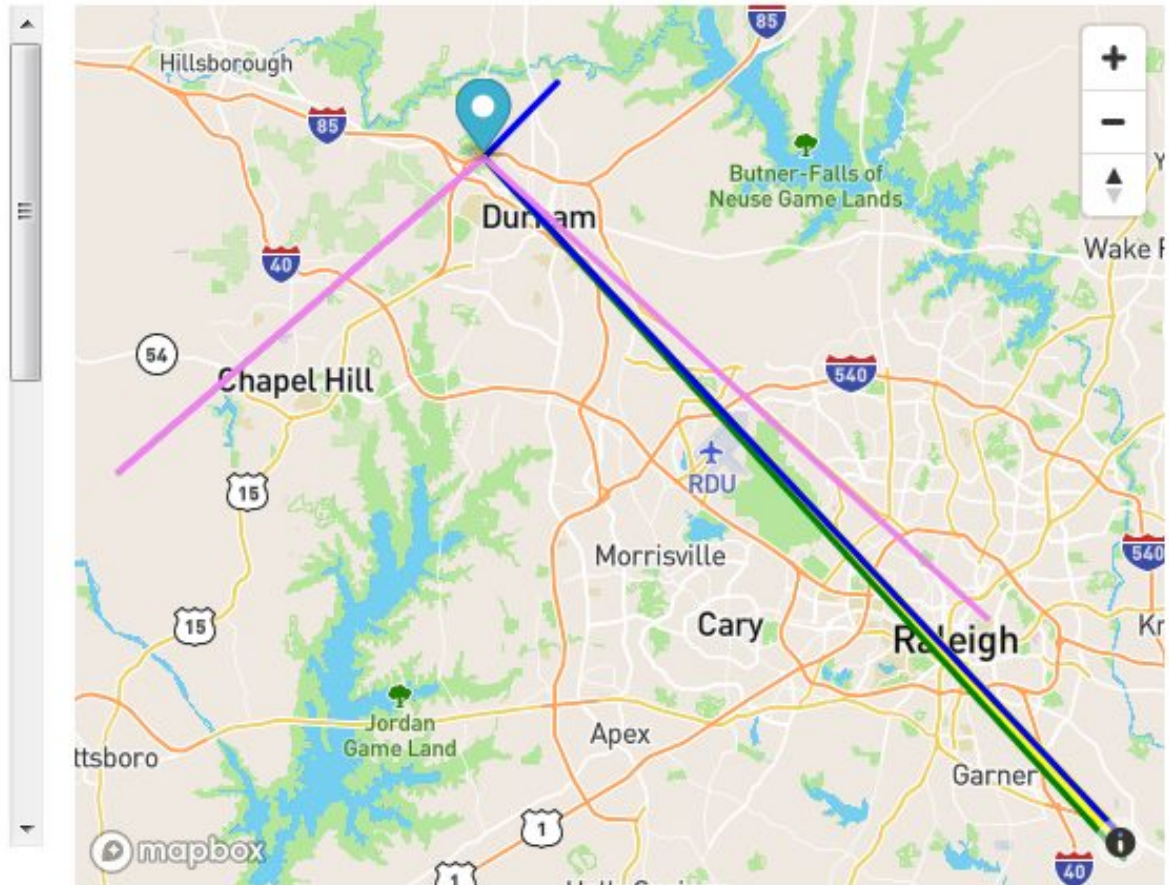
- Major networks broadcast over-the-air digital signals
ABC, CBS, NBC, FOX, PBS
- Many viewers in our area can receive these with an indoor antenna
- Check these websites for signal reception at your location
 - <https://www.antennaweb.org> (shows location of stations on a map)
 - <https://www.fcc.gov/media/engineering/dtvmaps>
- Note distances from home to stations to choose optimal antenna
- Antennas (try indoor first), amplified (or not), \$40-\$70 (e.g. Mohu, 1byone)
- Connect antenna and use TV setup menu to scan for channels
- Antenna placement: trial and error at first
 - different positions for “difficult” channels, may change with weather conditions

OTA Coverage: antennaweb.org

Up to 28 channels from 14 over-the-air stations may be received at this location.

Stations Antenna FCC Repack

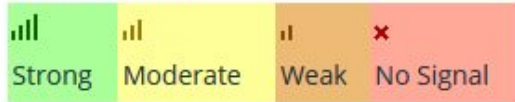
WRAL-DT 5.1 NBC RF Channel: 48 33 miles at 146°		 Yellow	
WRAZ-DT 50.1 FOX RF Channel: 49 33 miles at 146°		 Yellow	
WRDC-DT 28.1 MNT RF Channel: 28 33 miles at 146°		 Yellow	
WNCN-DT 17.1 CBS RF Channel: 17 33 miles at 146°		 Yellow	
WLFL-DT 22.1 CW RF Channel: 27 33 miles at 146°		 Yellow	
WTNC-LD 26.1 UMA RF Channel: 40 2 miles at 347°		 Yellow	
WRTR-CD 44.1 IND RF Channel: 49		 Yellow	



OTA Coverage: fcc.gov dtvmaps

DTV Coverage

Signal Legends



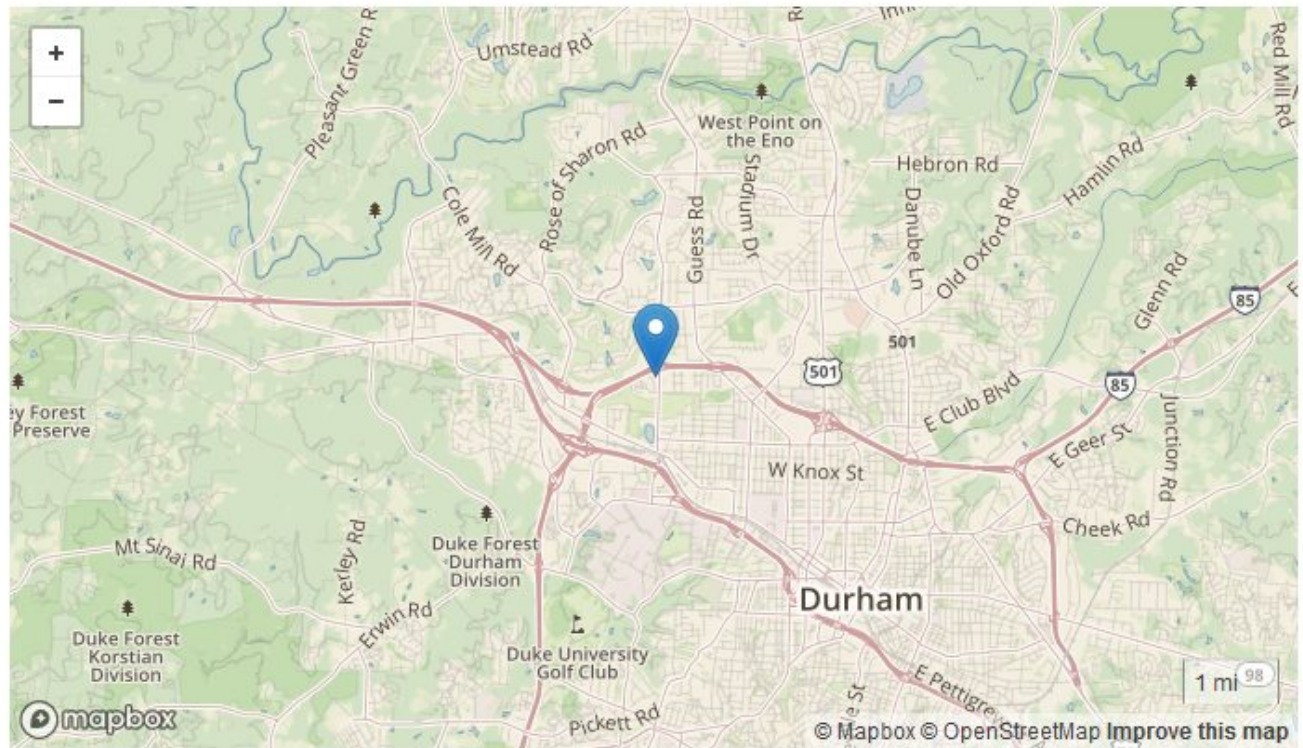
Incentive Auction (IA) Information

Mouse over the letter for more details about that callsign.

Callsign	Network	Ch#	Band	IA
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Click on callsign for detail

WRAL-TV	NBC	5	UHF	R
WRAZ	FOX	50	UHF	R
WRTD-CD	TELE	54	UHF	R
WRDC	My N	28	UHF	R
WLFL	CW	22	UHF	R
WUVC-DT	UNIV	40	UHF	R
WNCN	CBS	17	UHF	RS
WUNC-TV	PBS	4		
WRAY-TV	TCT	30	UHF	R
WLXI	IND	61		
WTVD	ABC	11	Hi-V	R



Please note:

These predictions are based on a terrain-sensitive propagation model resembling but not identical to the propagation model used when calculating service and interference contours for licensed broadcast television stations. Actual signal strength may vary based on a variety of factors, including, but not limited to, building construction, neighboring buildings and trees, weather, and specific reception hardware. Your signal strength may be significantly lower in extremely hilly areas. Click on a callsign for details about that station's Incentive Auction repacking plans.

Streaming Services

- **Netflix** subscribers: 58M US, 130M WW (30-day trial)
Cost: \$8/mo SD 1 screen, \$11/mo HD 2 screens, \$13/mo UHD 4 screens
Sharing: based on plan (1, 2 or 4 simultaneous screens or download devices)
Account hold: cancel and restart within 10 months w/ same profiles/favorites
- **Amazon Prime** streamers: 26M US of 100M US members
Cost: \$13/mo, \$119/yr, Non-Prime programs \$3-\$4/episode, \$15-\$30/season
Add-ons: CBS All Access \$6/mo, HBO \$15/mo, Showtime \$11/mo
STARZ \$9/mo, PBS Masterpiece \$6/mo, Acorn TV \$5/mo
Sharing: Amazon Household (2 adults), view two simultaneous streams
Account hold: join monthly plan, or cancel and rejoin Prime
- **Hulu** subscribers: 20M+ US (30-day trial)
Cost: \$8/mo (1 month free) (*special \$6/mo for first year*), \$12/mo “ad-free”
Add-ons: HBO, Showtime, Cinemax, Starz
Sharing: allows multiple devices but can only view on single device at a time
Account hold: 1-12 weeks, 3x in 3 month period, hold effective start of billing cycle

Live TV Streaming Services

- **Sling TV - 30 Orange / 42 Blue channels** (7-day trial)

Cost: Orange \$25/mo: AMC, CNN, HGTV, Food Network, BBCA, TNT, ESPN, ...

Sling Blue \$25/mo: Replaces ESPN with Fox/NBC (+sports)

Orange+Blue \$40/mo, Cloud DVR \$5/mo (live but not ESPN, 50 hours)

Add-ons: HBO, Showtime, Starz; NBA team pass \$18, Cloud DVR \$5 (50 hrs)

- **Hulu with Live TV - 50 channels** (7-day trial)

Cost: \$40/mo with live TV (7 day free trial), switch plans or cancel any time

Add-ons: HBO, Showtime, Cinemax, 200-hour DVR

- **YouTube TV - 60+ channels** (7-day trial)

Cost: \$40/mo, 60 channels, unlimited DVR, 6 members per household

YouTube Red extra \$10/mo (ad-free, video downloads, Google Play Music)

Add-ons: Showtime, Starz, Sundance Now, not HBO

Other Streaming Services

- CBS All Access - \$6/mo or \$10/mo ad-free
- ESPN+ – \$5/mo or \$50/year
- Acorn TV: Britain and beyond - \$5/mo (free via Durham public library acct)
- PSB free streaming (current programming)
- PBS Passport: 1,500 on-demand episodes - \$5/mo or \$60/yr donors
- DirecTV Now: 60-120 live channels - \$40-\$70/mo
- Philo: 43/55 live channels - \$16-\$20/mo

Streaming Devices

Device	Price	4K	Voice	Comments
Apple TV	\$149	No	Yes	32GB
Apple TV 4K	\$179	Yes	Yes	32GB or \$199 for 64GB
Roku Express	\$30	No	No	model 3900R
Roku Stick	\$50	No	Yes	model 3800R
Roku Stick+	\$60	Yes	Yes	model 3810R, dual-band wifi
Roku Ultra	\$100	Yes	Yes	micro SD and USB, advanced remote
Fire TV Stick	\$40	No	Yes	
Fire TV Stick 4K	\$50	Yes	Yes	
Fire TV Cube	\$120	Yes	Yes	TV + Alexa
Chromecast	\$35	No	No	Controlled via mobile device (iOS or Android)
Chromecast Ultra	\$70	Yes	No	Controlled via mobile device (iOS or Android)
TiVo Roamio OTA	\$400	No	Yes	1TB DVR + streaming player, skip/quick modes \$15/mo or \$149/yr service plan
Smart TVs	\$170+	Maybe	Usually	Custom streaming or integrated Roku player

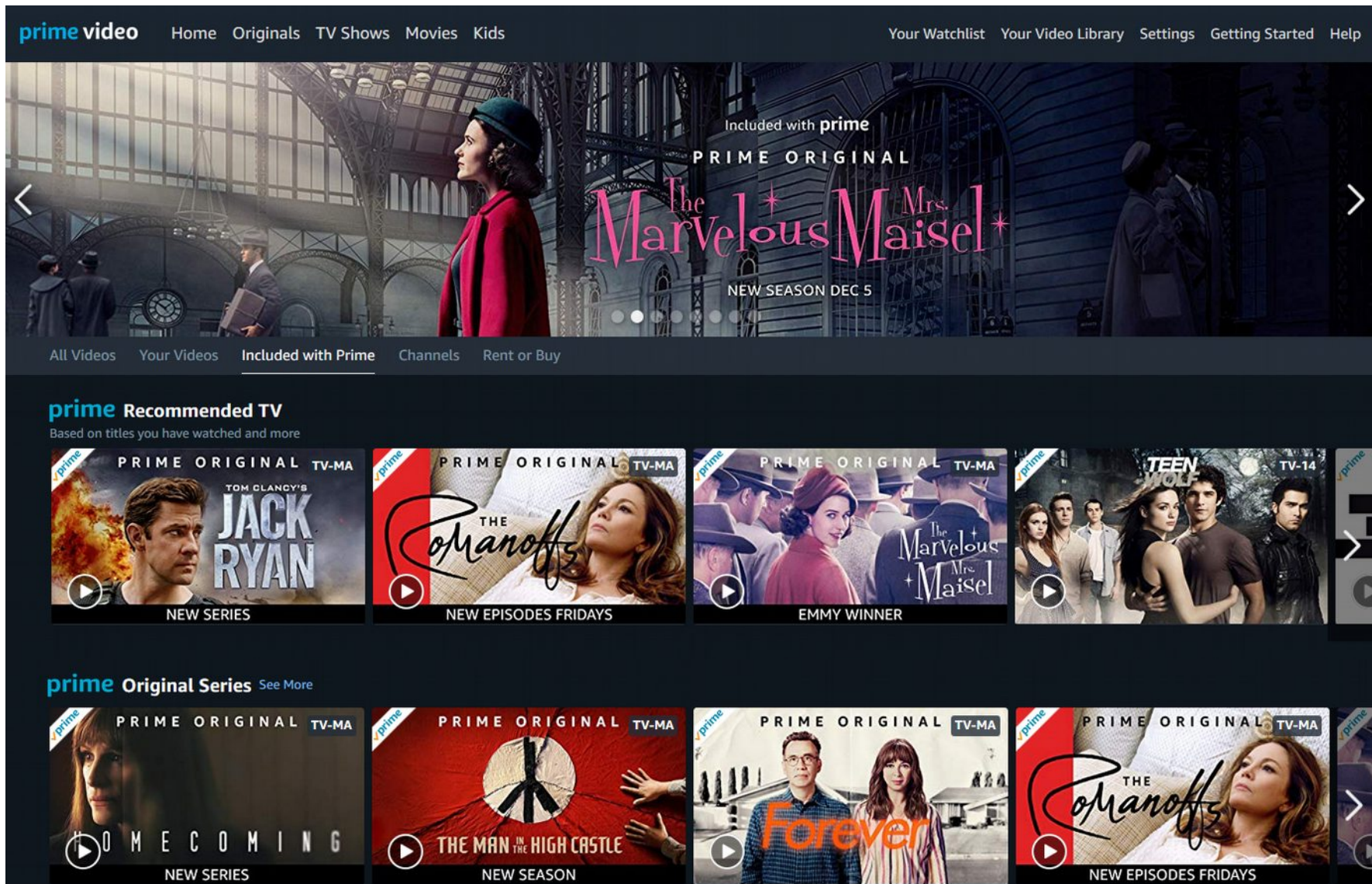
Streaming Device Examples

Roku Stick

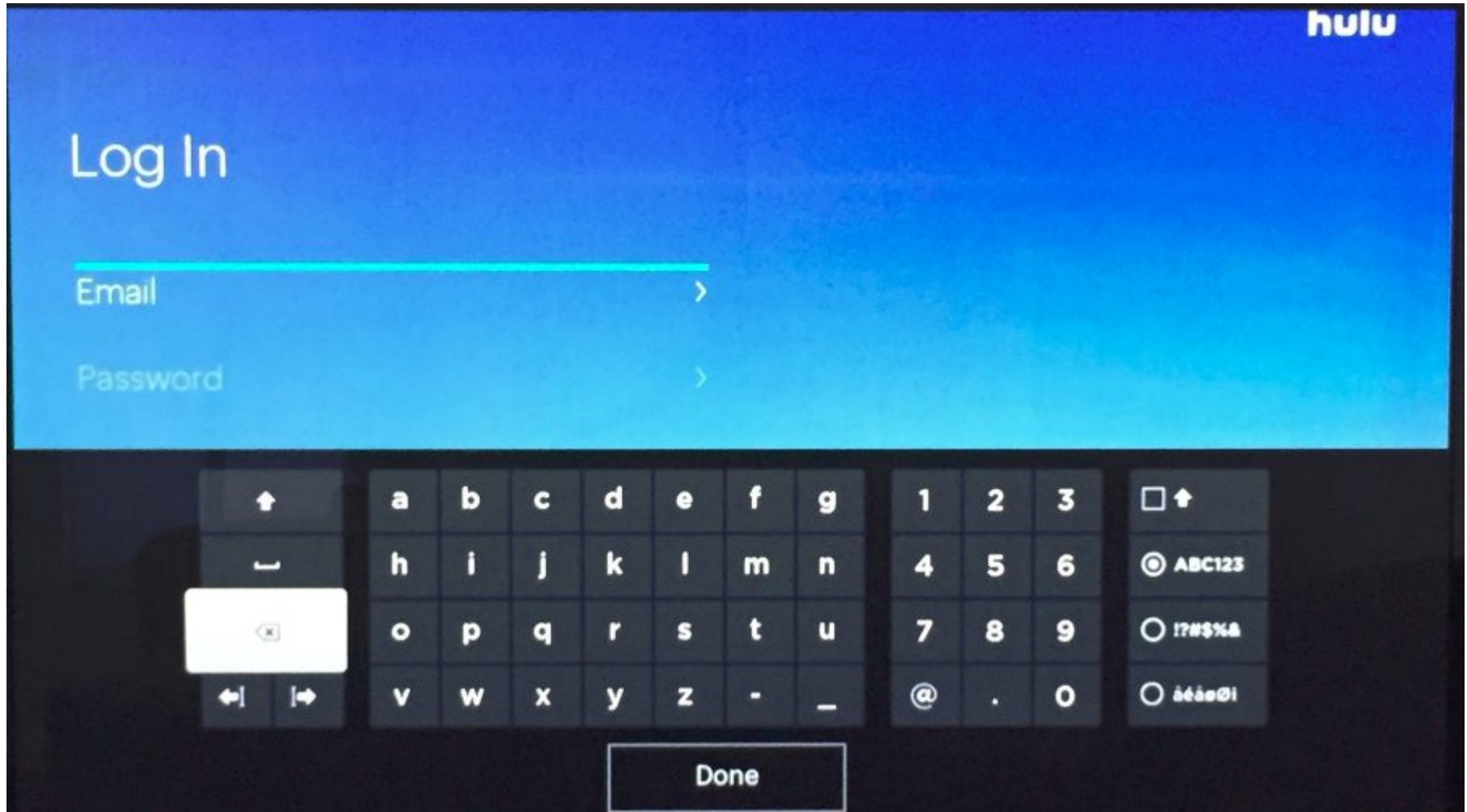
Fire TV Stick



Streaming Main Menu (Prime Video)



Streaming Keyboard Menu (Hulu)



Streaming Series Menu (Netflix)

LUTHER
94% Match 2015 TV-14 4 Series

Series 1 6 episodes

Series 2
Series 3
Series 4

Episode 1
DCI John Luther returns to work after taking leave following the traumatic arrest of serial killer Henry Madsen.
(52m)

Episode 2
Luther attempts to outmaneuver a sniper on a mission to kill police officers, but as the body count rises, he must uncover the killer's true motives.
(52m)

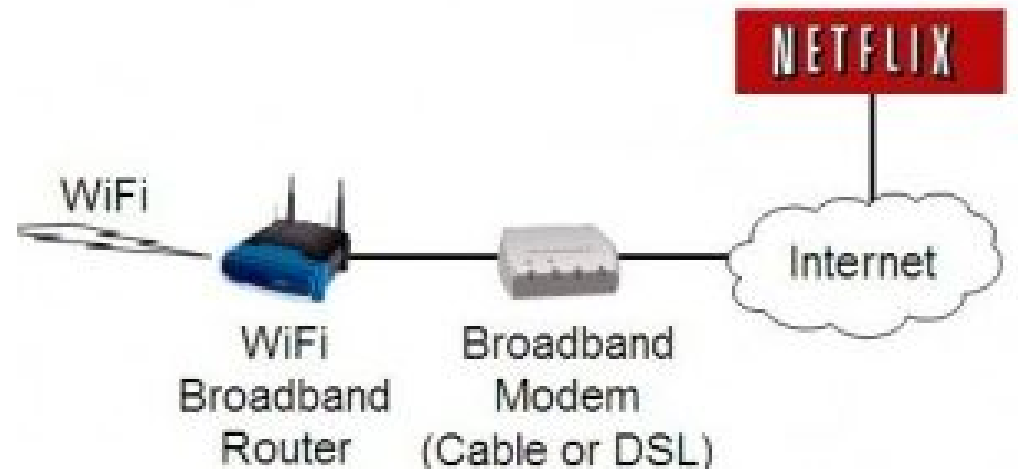
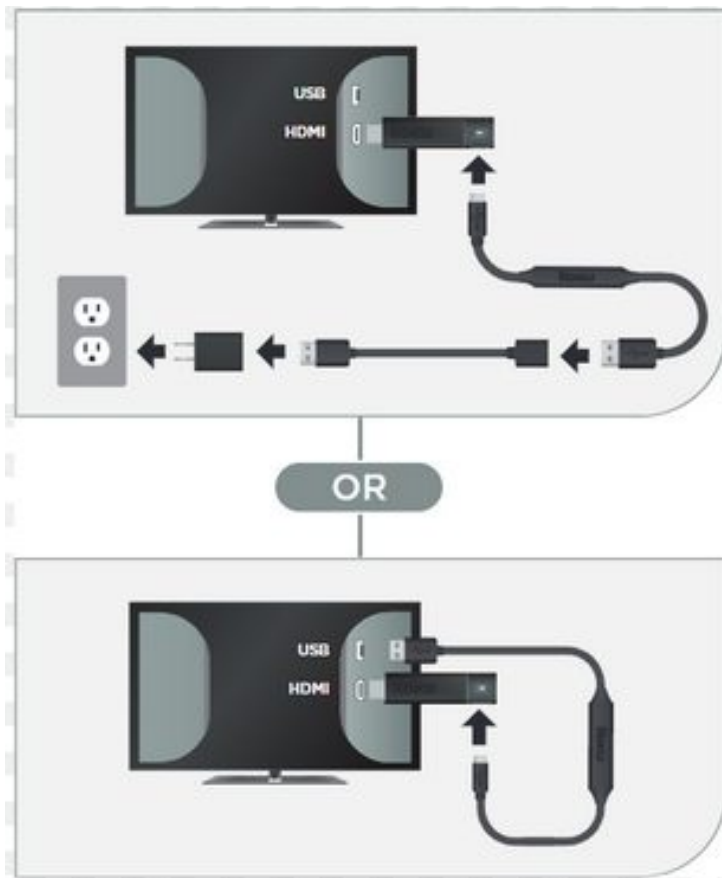
Episode 3
A young mother has been abducted and Luther realizes it's the work of Lucien Burgess, a collector and writer of the occult.
(52m)

Episode 4

The image shows a Netflix interface for the TV series 'Luther'. At the top left, the title 'LUTHER' is displayed in large white letters. Below it, there is a green '94% Match' indicator, the year '2015', a 'TV-14' rating box, and '4 Series'. A navigation menu on the left lists 'Series 1' (highlighted with a white border and '6 episodes'), 'Series 2', 'Series 3', and 'Series 4'. The main content area features three episode preview cards. Each card has a small video thumbnail, the episode identifier (e.g., 'S1: E1'), and a text description followed by the duration '(52m)'. The first card shows two men in a room. The second card shows a woman looking out a window. The third card shows a person in a dark, industrial setting. The fourth card is partially visible at the bottom.

How to Connect a Streaming Device

- Streaming device (e.g., Roku) plugs into TV's HDMI port
- Signal travels from ISP via modem to router, then to device via wi-fi signal
- Suggest using 5GHz wi-fi band (faster) + router guest network (security)



First-time Setup of a Streaming Device

- 1) Connect device to TV's HDMI port (on side or rear panel)
- 2) Connect device to power supply (TV USB port or power adapter)
- 3) Turn on TV and select that HDMI input source
- 4) Follow on-screen menu to connect to network (name + password)
- 5) Select services you plan to use, e.g., Hulu, Netflix, etc.
- 6) For each channel: log on with your account user name + password
- 7) Experiment with voice commands (on device's remote control)
- 8) Start streaming!

Some Observations

- Current episodes and past seasons not always on the same service
- Some current season episodes expire (e.g., only 5 most recent)
- Device remotes and on-screen navigation not the most user-friendly, so highly recommend voice commands if supported
- On-screen keyboard layouts differ widely and “typing” is tedious, so search content / manage watchlists from websites on computer
- Consider alternating streaming services every few months
e.g., can put Hulu on hold for up to 12 weeks

Useful Websites

- General streaming / cord- cutter websites
<https://www.cordcuttersnews.com>
<https://www.techhive.com/column/cord-cutter-confidential/>
<https://www.tomsguide.com/t/streaming/>
<https://www.gizmodo.com>
- Streaming Content Search and Reviews
<https://www.reelgood.com/>
<https://www.justwatch.com/us>
<https://www.decider.com>
- Try Google search on “original programs netflix” or similar
- When searching the web, use the most recent articles possible to ensure the information is up-to-date

Tips for Getting Started

- Keep a log of your household viewing habits for at least a week
- Check for adequate internet bandwidth (10-50+ Mbps download)
<https://www.speedtest.net> -or- Google search “internet speed test”
- Ask neighbors about OTA on Nextdoor.com or a local listserv
- Experiment with Over-the-Air antenna before cutting the cord
- Explore streaming content and create a starter watchlist
<https://www.reelgood.com/> -or- <https://www.justwatch.com/us>
- Buy (or borrow) a streaming device and use free trials
Note: can view episodes on a computer without a streaming device
- Watch for holiday specials and device + service bundles
- Use OTA and/or sign up for streaming.... and cancel your cable!