

# Cheapskate Tech

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[seniortechadvisor.com](http://seniortechadvisor.com)

# What We'll Cover in 6 Weeks

- ~~• Overview, plus Shopping tips~~
- ~~• Devices and Apps~~
- Internet of Things (IoT) and Entertainment
- Chromebooks
- Linux...

# My Top 10 IoT Devices

# What's IoT? ([source](#))

- The **Internet of Things (IoT)** is a system of interrelated computing devices with the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction



A Nest learning thermostat reporting on energy usage and local weather

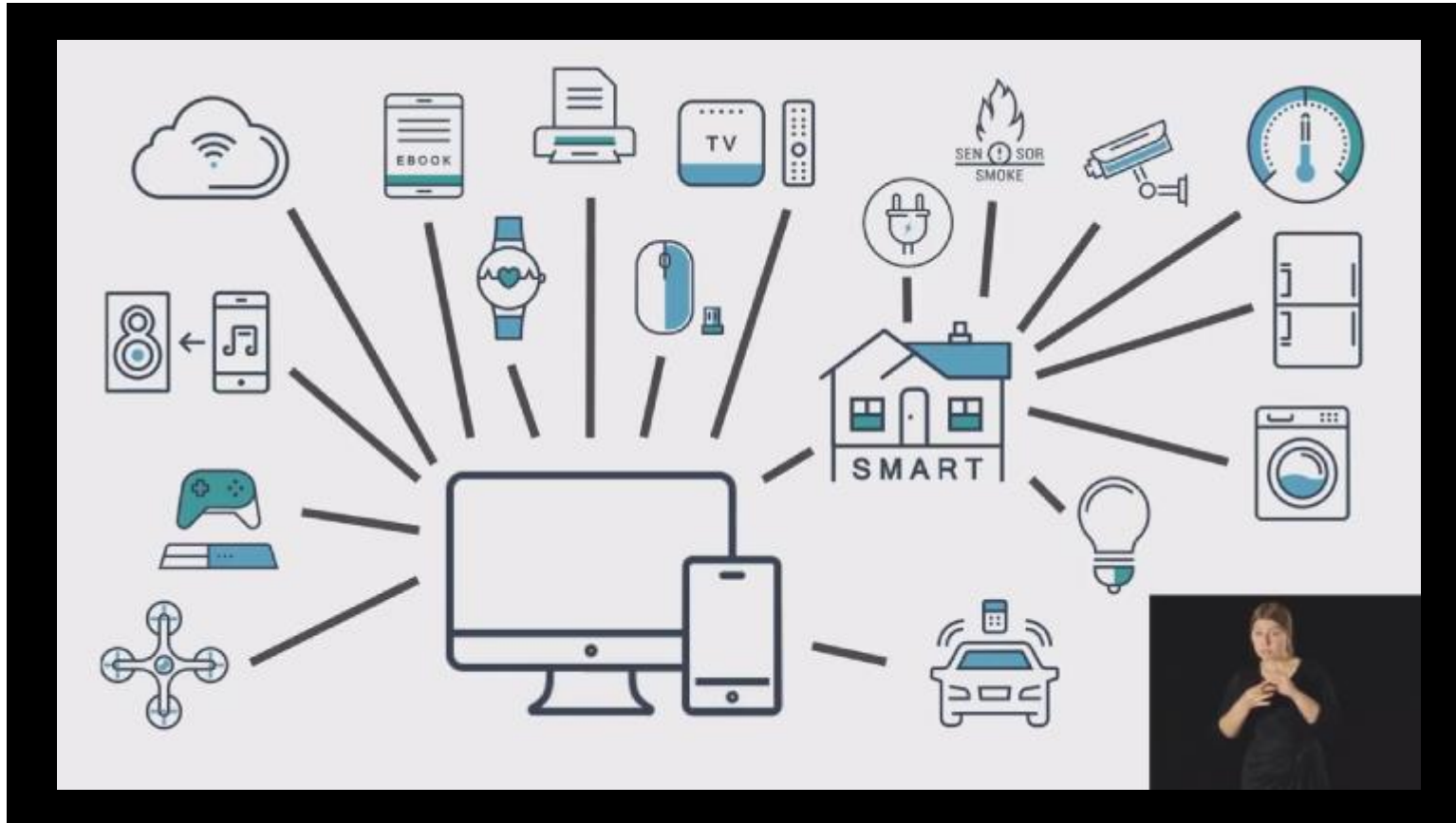


A Ring doorbell connected to the Internet

- Security is the biggest concern in adopting Internet of things technology.
- Poorly secured Internet-accessible IoT devices can also be subverted to attack others as was the case with the [Mirai Botnet](#) that infected 65,000 IoT devices in the first 20 hours
- The Mirai Botnet singled out specific IoT devices that consisted of DVRs, IP cameras, routers and printers.
- IoT devices have access to new areas of data, and can often control physical devices, so it is possible to say that Internet-connected appliances could "spy on people in their own homes", including televisions, kitchen appliances, cameras, thermostats, etc.

But that's not going to stop me from enjoying the benefits of IoT devices!

# IoT – Some Things to Consider ([source](#))



# More videos about IoT

[Internet of Things: Are Smart Devices Helping or ... - TED Talks](#)

Oct 9, 2019

[Wei Xiang: Internet of Things is Now and the Future | TED Talk](#)

Sep 24, 2019

[Ken Munro: Internet of Things Security | TED Talk](#)

Sep 24, 2019

[What is the Internet of Things? And why should you care ...](#)

Dec 17, 2014

[Unlocking The Next Frontier Of The Internet Of Things ...](#)

Jan 7, 2020

[The internet of things | Jordan Duffy | TEDxSouthBank ...](#)

May 21, 2016

[What is the Internet of Things? And why should you care? | Benson Hougland | TEDxTemecula](#)

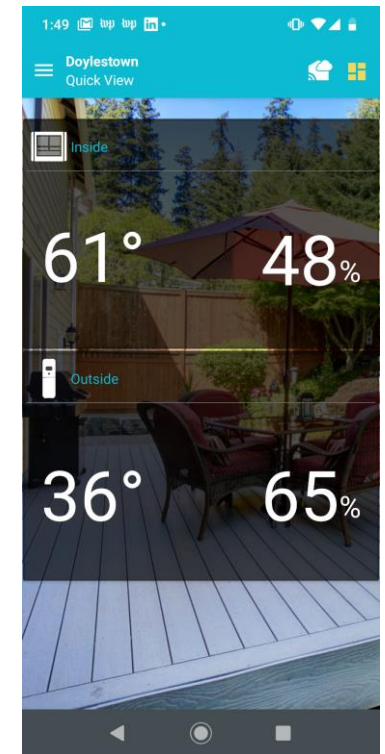
Dec 17, 2014

# # 10

- [La Crosse Technology V10-TH-INT V10-TH Wireless WiFi Weather Station](#)
  - \$39.99 (maybe \$30 on sale)
- [La Crosse Projection Alarm Clock with Weather](#)
  - \$39.99 (Costco sale \$25)



Smart Phone App

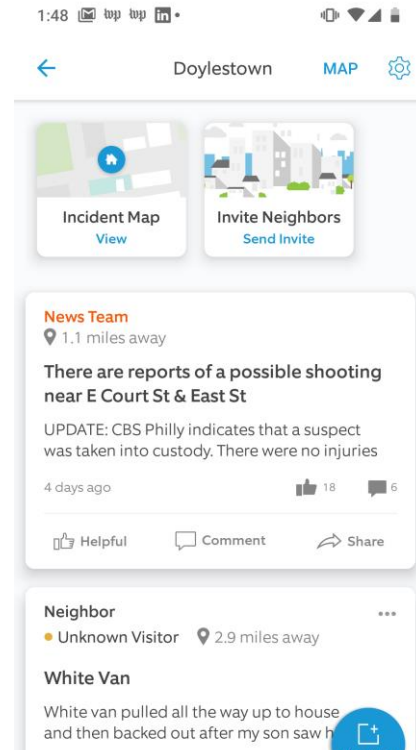
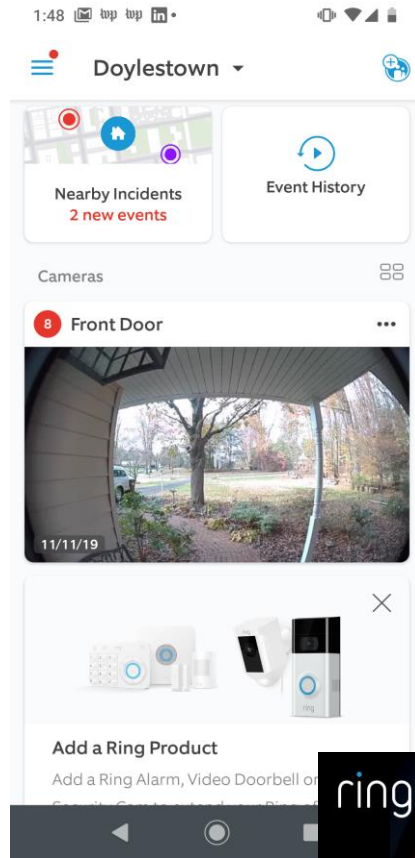
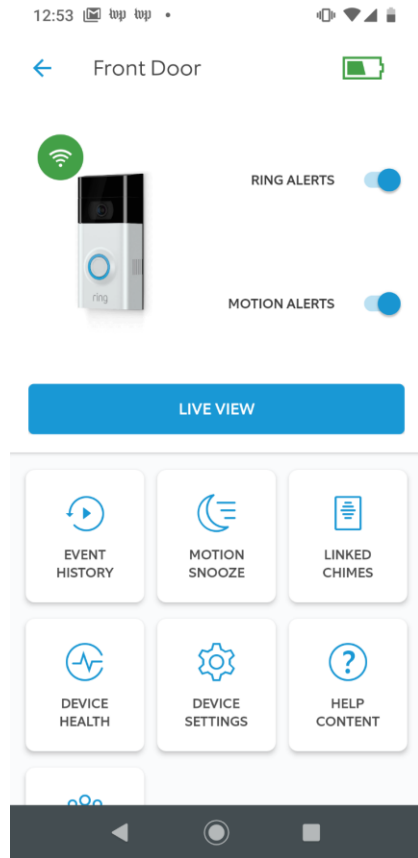


# # 9

[Ring Video Doorbell 2 with HD Video](#)  
\$90 Amazon deal



## Smart Phone App



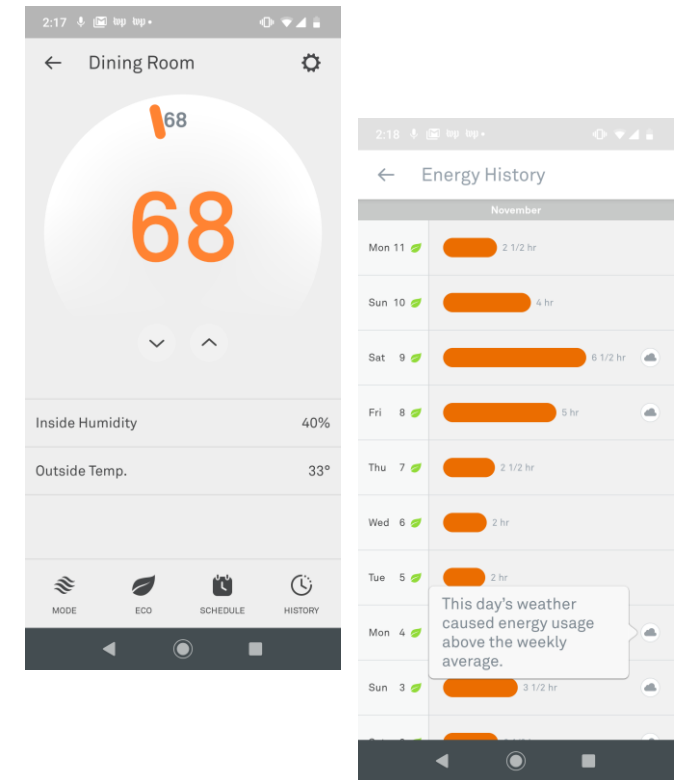


# # 8

- [T4000ES Learning Thermostat E \(White\)](#)
  - \$167.99 (\$100 PECO promotion)



## Smart Phone App



# # 7

## Corentium Home Radon Detector by Airthings 223 Portable

\$165 on Amazon



And this is the IoT version:

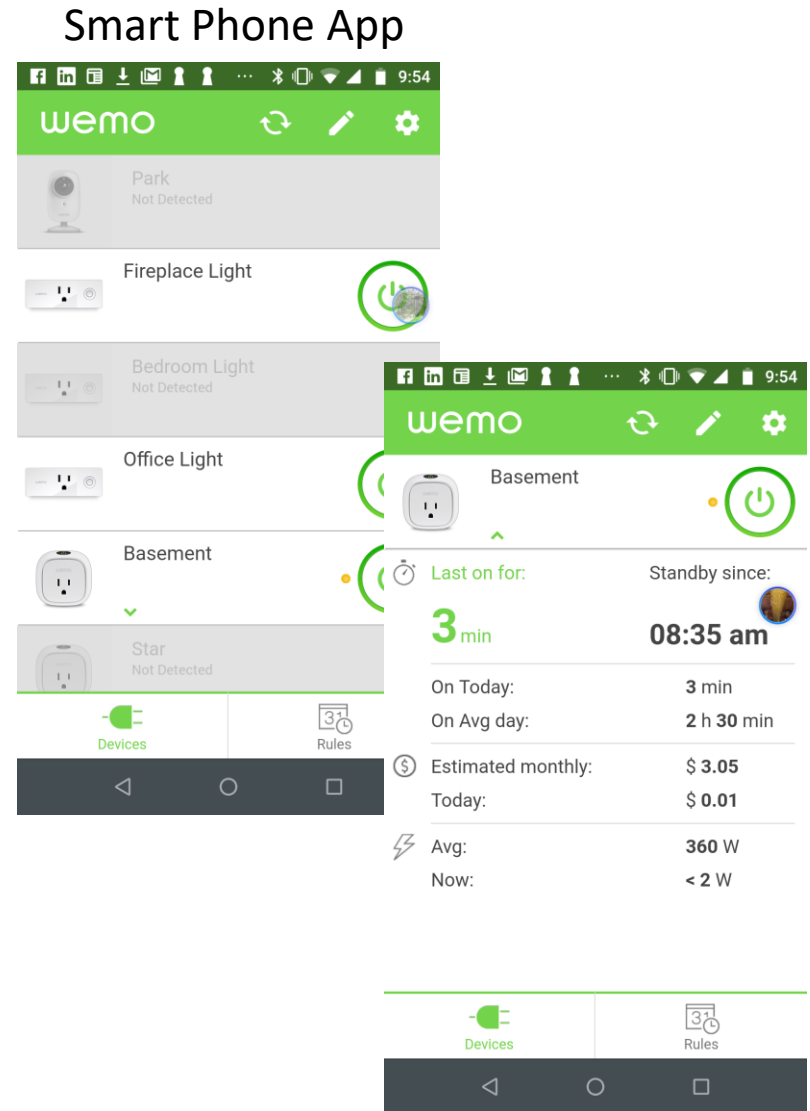
## Airthings Wave (2nd Gen) - Smart Radon Detector



# # 6

- Wemo Insight Smart Plug with Energy Monitoring, WiFi Enabled, Control Your Devices and Manage Energy Costs From Anywhere, Works with Alexa and the Google Assistant

- \$40 on Amazon



# # 5

- Amazon Echo 'Everything'

- Amazon Echo Input \$18
- Amazon Echo Auto \$25
- Echo Dot (Gen 1) \$100
- Echo Dot (Gen 2) \$25
- Echo Dot (Gen 3) Free\*
- Echo Dash Wand Free\*
- Echo Show 5 \$40

- And the Google Home Mini Free\*



\* Got these during various Amazon and Google/Spotify promotions

# # 4

- What's Bluetooth?
  - a [wireless](#) technology for exchanging data between fixed and mobile devices over short distances (uses 2.400 to 2.485 GHz)
- My favorites:
  - Soundbar: [Vizio SB3651-E6 36" 5.1 Channel SmartCast](#) (\$200)
    - Has Bluetooth and Chromecast\* built in
  - [Google Chromecast Audio](#) (\$39, sale \$20)
  - [TP-Link NFC-Enabled Bluetooth 4.1 Receiver](#) (\$20)
    - What's [NFC](#)?



# # 3

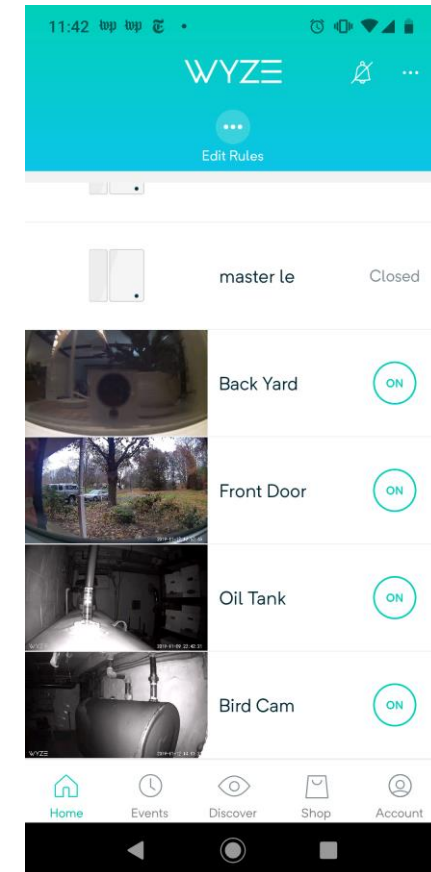
[Wyze Cam](#) (\$20) + [Wyze Sense](#) Starter Kit (\$20)



+



Smart Phone App



# # 3 (continued)

- More from Wyze



WYZE BAND  
\$24.99



WYZE CAM PAN  
\$29.99

# # 2

- VoIP and Analog Telephone Adapters (ATAs) – what are these?
  - My favorite [ATAs](#) (assumes you have a good Internet service provider)
    - Current favorites: [MagicJack](#) and [ObiHai](#)
    - Previous favorite: [Ooma](#)
    - Not such a great deal: [ZTE Wireless Home Phone Base](#)
    - Also consider [WhatsApp Messenger](#) for international calling
  - [ObiHai](#) (\$50, then free)
  - [MagicJack](#) (\$50, then free for a year)
    - After that \$39/yr, or \$89 for 3 years = \$2.50/mth
  - [Ooma](#) (\$60, then \$6.32/mth – local taxes)
  - [ZTE Base](#) (\$25, then \$15/mth with existing CC contract)





# # 1

- [Roku Express - HD Streaming Player](#) \$22
- [Roku Ultra 4K/HD/HDR](#) \$48 (Black Friday sale – really good price!)



# Digital Entertainment defined

Digital Entertainment refers to **accessing and experiencing your favorite entertainment** – TV shows, movies, book, music, radio broadcasts, newspapers, magazines, and audiobooks- **using the Internet and available technologies.**

Source: [My Digital Entertainment for Seniors](#), Jason R. Rich

# Types of Digital Entertainment

- Audiobooks
- Video Games
- eBooks
- Movies
- Music
- Newspapers & Magazines
- Radio
- Television
- The Web

# Digital Entertainment – terms

- On-Demand – when and where you want it
- Digital Publication – versus traditional paper-based [publishing](#)
- Streaming – content available on-demand, not downloaded
- Downloading – copy of content made available locally
- Pay-per-view or Subscription-based – not free
- ‘Appliances’ – devices designed to receive streamed content
- Security – payment methods, accounts and passwords are still a factor

# Getting Started

- Be 'brave' – you can do it!
- What you'll need
  - An Internet connection
  - A 'smart' TV or streaming device
  - A subscription (service)

Word to the wise: Don't pay for things you don't need\* or want, and don't pay too much for the things you do want

# Connection

In our area Comcast/Xfinity and Verizon seem to own the market

[Comcast/Xfinity](#)

## INTERNET

Up to 100 Mbps

Download Speeds

### PERFORMANCE INTERNET INCLUDES:

Limited time: Save up to \$59.99 on installation with a Free Self-Install Kit • Add a Flex 4K streaming device + Voice Remote for no additional cost • Speed good for up to 5 devices at the same time



Select to Compare

Share

\$39.99/mo

for the first 12 months  
with No Term Agreement

[Check Availability](#)

[Pricing & Other Info](#)

[View Details](#)

# Connection (continued)

## Verizon FIOS

**1-Year Price Guarantee**

**100/100 Mbps Internet**

**\$39.99 /mo**

w/ Auto Pay + taxes, equip. charges & other fees.

[Offer details](#)

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**Disney+ on us.**

For the first year, then \$6.99/mo after

**2-Year Price Guarantee**

**300/300 Mbps Internet**

**\$59.99 /mo**

w/ Auto Pay + taxes, equip. charges & other fees.

[Offer details](#)

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**Disney+ on us.**

For the first year, then \$6.99/mo after

**3-Year Price Guarantee**

**Fios Gigabit Connection  
Up to 940/880 Mbps Internet**

**\$79.99 /mo**

[Offer details](#)

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**Disney+ on us.**

For the first year, then \$6.99/mo after

**+ \$100 Visa® Prepaid Card  
+ 3-year free router rental**



[Using your own router with Verizon FiOS](#)

# OK, I have Internet access, now what?

- TV today
  - Smart vs Dumb TVs
- Streaming device choices
  - Apple TV ([Gen 4 HD](#))
  - Roku ([Ultra](#))
  - Amazon Fire TV ([Ultra HD Cube](#))
  - Google Chromecast ([Ultra](#) or [Google TV](#))
  - Others (ex. [‘Streaming’ DVD player](#))





# A word about HDMI

**HDMI (High-Definition Multimedia Interface)** - a [proprietary](#) audio/video [interface](#) for transmitting [uncompressed video](#) data and compressed or uncompressed [digital audio](#) data from an HDMI-compliant source device to a compatible [digital television](#), or [digital audio](#) device.

This is the video interface cable standard for most TVs and devices that connect to them. S-video, RCA, and composite video are considered obsolete.



# Devices

Streaming			Basic	Advanced
Apple (refurb)	<a href="#">Apple TV gen 4</a>	\$ 129.00		X
Roku	<a href="#">Premier</a>	\$ 70.00		
Roku	<a href="#">Express</a>	\$ 30.00	X	
Roku (used)	<a href="#">Stick</a>	\$ 16.00		
Google	<a href="#">Chromecast</a>	\$ 35.00	X	
Amazon (refurb)	<a href="#">Fire TV</a>	\$ 85.00		
Amazon	<a href="#">Fire Stick</a>	\$ 40.00		
Asus	<a href="#">ChromeBox (2gb)</a>	\$ 160.00		X
Asus	<a href="#">ChromeBox (4gb)</a>	\$ 205.00		
Logitech	<a href="#">Wireless Keyboard</a>	\$ 26.00		X
Sound				
Vizio (used)	<a href="#">2.1 soundbar</a>	\$ 125.00	X	
Interface				
Tendak	<a href="#">HDMI switch 4x1</a>	\$ 31.00		X
Portta (basic)	<a href="#">HDMI switch 3x1</a>	\$ 9.00	X	
Amazon Basics	<a href="#">SPDIF cable</a>	\$ 5.50	X	
Amazon Basics	<a href="#">HDMI cables (ea)</a>	\$ 7.00	X	X
TV (many)				
Samsung	<a href="#">40" monitor</a>	\$ 279.00	X	
Cheetah	<a href="#">Wall Mount</a>	\$ 29.00		
DVD player				
Sony (refurb)	<a href="#">DVPSR210P</a>	\$ 30.00	X	
getting started			\$ 520.50	
plus upgrades				\$ 344.00

## Basic configuration:

This is a complete setup that allows you to start streaming with good audio and video quality. Add to this your monthly internet and subscription charges.

## Advanced configuration:

Builds on the Basic configuration to add Apple TV, a ChromeBox/keyboard to access programming on the internet (like BBC America), a better HDMI switch since you're adding more devices that require HDMI access, and another HDMI cable.

\* S/PDIF (Sony/Philips Digital Interface Format)

\* [HDMI](#) (High-Definition Multimedia Interface)

# OK, I have a streaming device, now what?

- (Mostly) Free content
  - ABC, PBS\*, NBC, FOX, CBS\*\*, BBC America, HGTV...
- Subscription-based content
  - Amazon Prime Video, Hulu, Netflix, AcornTV, Disney +...
- Pay-per-view content
  - iTunes Store, Amazon.com, Google Play
- Streaming TV services
  - [Sling TV](#), [YouTube TV](#), [Hulu TV](#)...
- Streaming from your DVR – [Xfinity TV Go](#)

\*[WHYY Passport](#) - \$5/mth (\$60/yr) donation gives access to additional content

\*\*[CBS All Access](#) - \$6/mth 'limited' commercials, \$10/mth commercial 'free'

Note: Live TV includes commercials and select shows have promotional interruptions

# Confessions of a cable-cutter

- If you plan to dump cable, compare your costs first

- My subscriptions:

- Netflix (1 DVD/mth + streaming) - \$20.12/mth
    - Amazon Prime – \$9.92/mth – paid annually
    - Hulu (no ads) -\$12.70/mth
    - Disney + (3 yr. deal) - \$5.75/mth paid 3 years in advance)
    - Apple TV+ - \$4.99/mth
    - WHYY - \$5/mth (donation gets [Passport](#) access)
    - The Great Courses Plus - \$10.60/mth paid quarterly)
    - Pandora Premium - \$9.20/mth paid annually

Program total \$58.48/mth

Other \$19.80/mth

Plus Internet \$55/mth

\*Canceling CBS All Access can be tricky...

Sennheiser

## Sennheiser RS120 On-Ear Wireless RF Headphones with Charging Dock



13,323 customer reviews | 1000+ answered questions

List Price: \$129.00

Price: **\$62.99** ✓Prime



These headphones are great for those with some hearing loss for two reasons:

- Provides sound amplification close to the ear
- Allows others to adjust TV sound volume in the room that's comfortable for those with better hearing

Oh, and they do look cool!

This is the best price I have found which is a great value for these headphones!

**\$35.24** ✓Prime

+ \$2.11 estimated tax

**Used - Very Good**

Minor cosmetic imperfection on front of item (less than 1/4"x1/4"... » [Read more](#))

FULFILLMENT BY AMAZON ▾

- Free Two-Day Shipping: Get it Wednesday, March 29 ( order within **6hr 3min** ) .
- [Shipping rates](#) and [return policy](#).

# The Evolution of Radio

- Streaming options
  - Streaming internet radio stations – subscription and free
    - TuneIn, Radio.com, iHeart, NPR... and hundreds of others
- Sirius/XM – subscription only
- Streaming music services – create your own radio station
  - Pandora (paid vs free)

# Digital Music

- ~~Vinyl, 8 track, cassettes, CDs – obsolete~~
- ‘Digital’ music sources – free and paid
  - Amazon Music Store
  - Google Play Music – Play Music
  - iTunes Store – iTunes Player
  - YouTube Premium – YouTube Music
  - Pandora Plus or Premium
  - Spotify (paid version)
    - *A word about ‘explicit’ filters*

# Games and 'Interactive' Entertainment

- Free or fee
- Online gaming
- In-app purchases
- What's popular (top 15)
  - Angry Birds, Bingo Bash, Bridge Baron, Candy Crush, SagaDoubleDown Casino, Heads Up, Mahjong Deluxe, myVegas Slots, NYTimes Crossword, Scrabble, Solitaire Deluxe Social Pro, Sudoku, The Room Three, WordBrain, Words with Friends



# Digital Newspapers and Magazines

- Evolution from print to online news
- Access digital content
  - Download an app
  - Subscribe to a publication
  - Read – online or download content
- Free News Apps – network access required
  - Apple News, (Google) Play Newsstand
- What's available through our local library?
  - [RBdigital](#) – read current magazines

# eBooks

- Devices
  - Kindle , Nook, tablets, smartphones
    - Pros and Cons of each
- eBook sources
  - Apple iBooks, (Google) Play Books, Amazon Kindle, Barnes & Noble Nook
  - Your local library: [Overdrive](#), [Hoopla](#),  
And now [Libby](#)
- A word about eBook formats...



# Kindle e-Book loan example



## Kindle reading preference

Would you like to set your reading preference to Kindle? You'll only see the Kindle Book option for borrowed eBooks. You can adjust this preference on your Settings page at any time.

NO THANKS

SET KINDLE PREFERENCE



Success!

You've set Kindle as your reading preference.

CONTINUE TO AMAZON



You are signed in as  
**grantmaxson@gmail.com**  
[Use a different Amazon account](#)

Get library book

Deliver to:

Daniel's 2nd Kindle ▼

[How does this work?](#)

# Audiobooks

- Devices
  - PCs, tablets, smartphones
- Audio book sources
  - [Audible.com](#), Apple [iBooks](#), [Google Play](#)
  - Local Library resources
    - [Overdrive](#), [Hoopla](#), [Rbdigital](#), and [Libby](#)
  - Free stuff
    - Resource: [The Best Free Audio Books](#)