

Internet TV

Moving on from renting DVDs
Netflix - Hulu - Roku - Apple TV

Why This Topic?

- To bring us a little more up-to-date on a techy-topic
- Save money
 - Less expensive than renting DVDs
- More enjoyment
 - Time-flexibility in watching old episodes of TV shows old and current Movies
- Guide later purchases
 - Laptops desktops and monitors with appropriate HDMI port
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Topics

1. Brief history of recent TV development
2. Reason for change to digital
3. Options for doing it
 - a. Computer -> Monitor
 - b. Computer -> TV
 - c. Internet streaming box -> TV
4. How it might affect your next tech purchase
 - a. Ports VGA / DVI / HDMI
5. Demo
6. Q & A
7. End

Potted (recent) TV History

Monochrome - color

Over-the-air

Cable - Satellite

Standard def

Hight def

3D

Multi-channel sound

Renting DVDs (- stop doing it!)

Internet TV

Some Options

- Computer to Monitor
 - Windows Media center
 - Straight Internet Browser + Flash, Java, Silverlight
- Computer to TV
 - Connect Audio
 - Connect Video
- Buy an *Internet TV box* (several options)

<http://www.stumbleupon.com/su/1kdZv7/www.pcworld.com/printable/article/id%2C161432/printable.html>

Connectors

The challenge is to find a way to connect the output from your computer to the input of the TV for both:

- Video
- Audio

Unfortunately on older computers and TVs there may not be an immediate match.

However, there are frequently solutions:

- Cable adaptors
- Adaptor cards for desktop, USB for laptops

Audio Connections

- Standard def is two-channel or mono?
- High Def can be more than stereo
 - 5 channel
 - means there are extra considerations for sound connections
- HDMI connector conveys Video and 5-channel sound
- VGA connector carries video ONLY therefore necessary to connect sound some other way

Video Connections

- VGA - Video Graphic Array Original 640 X 480 video standard
- DVI (older digital video connector standard)
- HDMI High Definition Multimedia Interface
Current Hi-def connector standard
- S-Video

Connectors - other

S-Video - Old video standard better than VGA but not High-def. This was a common connector on older standard def TVs and may be present on some current TVs

Optical Sound Connector (fiber-optic cable)

This was a way of connecting 5-channel sound on older systems

ARC - Audio Return Channel - another new standard.

The Audio Return Channel in HDMI 1.4 enables a TV, via a single HDMI cable, to send audio data “upstream” to an A/V receiver or surround audio controller, increasing user flexibility and eliminating the need for any separate S/PDIF audio connection. http://www.hdmi.org/manufacturer/hdmi_1_4/arc.aspx

New TVs

Many new TVs are equipped with

- Ethernet port
- WiFi
- Browser-like software for connecting to Internet TV services

Panasonic

Viera Cast is a [Smart TV](#) platform by [Panasonic](#) that makes it possible to stream [multimedia](#) content from the Internet directly into select Viera [HDTVs](#) and [Blu-ray disc](#) players.

Sources of Streaming Video

- Hulu
- Netflix
- Amazon
- Veho
- Clicker
- Sling

Hulu

Pros

Hulu possesses a vast library of hit TV shows currently on the air.

Cons

Some popular shows are not available through the service.

The Verdict

Hulu pioneered the concept of watching television shows online, they have it down to a science.

<http://internet-tv-sites-review.toptenreviews.com/hulu-review.html>

<http://www.hulu.com/>

<http://www.hulu.com/plus> - \$7.99/month

Amazon.com

Pros

Few companies in the world have a content library as vast and comprehensive as Amazon's selection.

Cons

Mac users have to settle for streaming shows only. There's no downloading function for OSX.

The Verdict

The brand name alone gives the service an immense gravity of selection and quality, and it doesn't disappoint.

http://www.amazon.com/Instant-Video/b/ref=sa_menu_atv9?ie=UTF8&node=2858778011

Netflix

Pros

The price you pay for a Netflix subscription is miniscule for the volume of content available.

Cons

New TV shows and recent DVD rentals take a while to appear in the Netflix library.

The Verdict

Simply put, Netflix is a great service for a low price.

<https://www2.netflix.com/>

[http://www2.netflix.com/NetflixReadyDevices?](http://www2.netflix.com/NetflixReadyDevices?Inktrk=nmh_nrd)

[Inktrk=nmh_nrd](http://www2.netflix.com/NetflixReadyDevices?Inktrk=nmh_nrd)

VEOH

Pros

Veoh provides a wide variety of shows, many of which you can't find on other services.

Cons

Some of the user-generated content is unrelated to TV.

The Verdict

The selection and ease of Veoh are the compelling factors for choosing this service.

<http://www.veoh.com/>

CLICKER

Pros

Clicker provides an online hub to content from all other internet TV sites.

Cons

You must leave Clicker in order to watch the shows.

The Verdict

A great site to discover TV shows around the web.

SurfTheChannel

SurfTheChannel aggregates video from all over the internet—including sites like YouTube, MetaCafe, and Hulu (along with much more obscure sites)—then makes all of those videos available through a simple, searchable interface. It's not always pretty, but the selection is huge. The downside: According to the STC homepage, the site will shut down on October 1st.

SideReel

SideReel is a video aggregation site similar to SurfTheChannel, providing links to streaming video from all over the internet. It's an attractive site, but if you're there to find video it can be difficult to navigate to begin with. If video is what you're looking for, just navigate to the Links section of a show's page and click on the episode you want.

Sling or Dishonline and PC-> Video Recorder

<http://www.dishonline.com/big-news>

<http://windowssecrets.com/insider-tricks/turn-that-spare-pc-into-a-digital-video-recorder/>

Other Sources of Info.

<http://lifehacker.com/5055337/five-best-sites-to-stream-tv>

(info on proxy server)

<http://www.makeuseof.com/tag/the-best-tools-to-watch-tv-on-your-computer/>

<http://internet-tv-sites-review.toptenreviews.com/hulu-review.html>

<http://www.stumbleupon.com/su/1kdZv7/www.pcworld.com/printable/article/id%2C161432/printable.html>

<http://www.makeuseof.com/tag/how-to-watch-movies-and-shows-on-hulu-sling-from-abroad/>

(watch Hulu and overseas)

<http://lifehacker.com/308538/six-ways-to-catch-your-favorite-tv-shows?tag=softwarehackattack>

Notes

Roku box to monitor and Computer sound system. (You can buy an adapter from 3.5 mm jack to two RCA connectors (for stereo))

See this page for more info on watching Youtube on the Boob tube

http://www.pcworld.com/article/161432/12_ways_to_bring_youtube_to_the_boob_tube.html

The Big Three TV Networks

Apart from the sites dedicated to streaming content, more and more networks are building their own on-site tools for streaming content from the source. For example, the big three networks all have streaming sites: the **ABC Full Episode Player**, the **NBC Video Library**, and **CBS Video**. If you missed a show you're dying to catch online, be sure to check the web site of the network it aired on to see if it's available.

The **BBC iPlayer** streams content from up to 250 programs from the British Broadcasting Corporation. BBC iPlayer restricts streaming to the UK-only, but like Hulu, setting up a proxy with an application like **previously mentioned Hotspot Shield** has worked for many people looking to get around these restrictions.

<http://lifehacker.com/5055337/five-best-sites-to-stream-tv>