



Evolving “By Any Media Necessary”

How we stopped worrying
and learned to love
high speed internet at BCTV

Who are we?



BCTV's
office and
Studio in
the
Brattleboro
Municipal
Center



Who are we?

- Brattleboro Community TV (BCTV)
- Small public access center in Vermont serving a rural area around a large town/small city of 12,000
- Wide range of internet speeds
- Low cable penetration outside main roads in outlying towns



Why are we part of this panel?

- One year ago: wired to fiber network
- Here to share what changed at the station internally and externally
- Practical perspective

Live stream of two channels



Community TV by and for Brattleboro, Guilford, Dummerston, Jamaica, Newfane, Putney, Townshend and Vernon, VT.



WATCH BCTV



USE BCTV

TV SCHEDULE

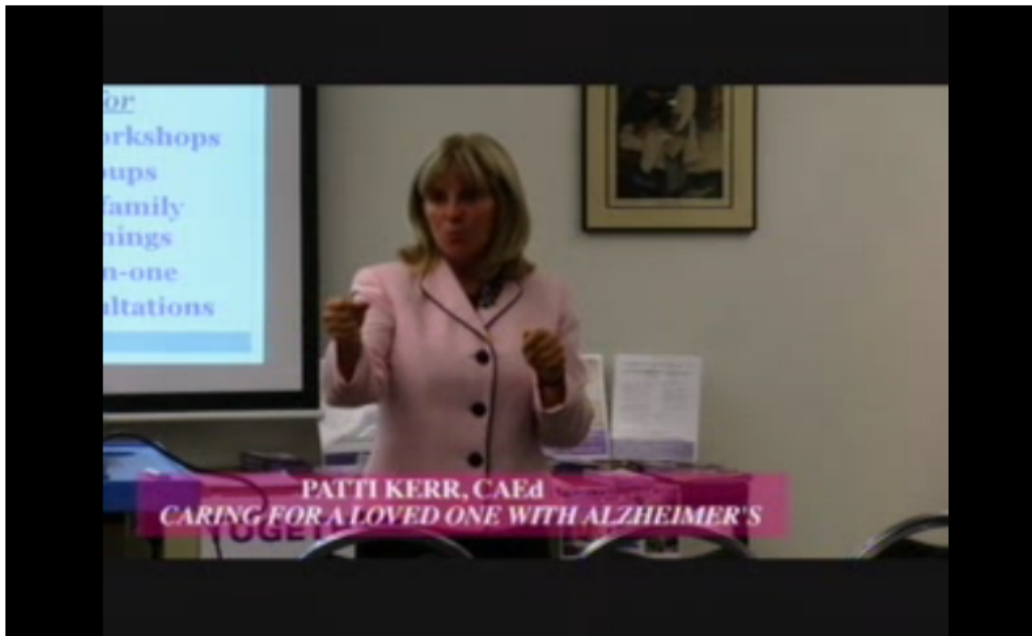
WATCH NOW

VIDEO LIBRARY

MEETINGS

TOWNS

PARTNERS



OTHER WAYS TO WATCH

[Channel 8 Live](#)

[Channel 10 Live](#)

[Program Search](#) - search for any program

[Video Library](#) - all local programs

[Online TV Guide](#) for both channels

BCTV Channel 8 Live Stream

BCTV's public and educational channel is available to stream from your computer! Watch sports, religious programs, talk shows, local interviews and... [READ MORE »](#)

On-demand Video Library with adaptive bitrate

BCTV Video Library

Keyword or Title

Production Date

E.g., 2014-10-06

Tags

Search

Reset



2014 - BCTV Year in Review
BCTV Highlights



BUHS-TV 10/3/14
BUHS-TV News



Newfane SB Mtg 10/2/14
Newfane Selectboard



Energy Week Extra: Bensonwood
10/2/14
Energy Week with George Harvey



What do we mean by High-Speed?

Previous package:

- Comcast Business Service:

- 5 UP
- 20+ DOWN
- Shared bandwidth (dependent on time of day and neighboring uses)
- Quota cap for streaming
- Uploads affected downloads

What do we mean by High-Speed?

Current package:

- Sovernet Fiber Service:
 - 30 mbps UP
 - 30 mbps DOWN
 - Dedicated bandwidth
 - Potential for point-to-point connection with other anchor institutions
 - Quality of connection > Quantity

Internal changes:

- Uploading to VOD (TelVue, YouTube)
- Downloading from Vermont Media Exchange etc
 - Happens all day long, takes minutes
 - Multiple programs at a time
 - One hour program used to take 6 hours+
 - Used to do overnight, lots of incomplete up/downloads and lost time
- Able to move all internet uses to one account, one modem

Internal uses:

- Trend toward cloud-based subscription services for video production:
 - Filesharing (Mediafire, Hightail)
 - Editing (Adobe Creative Cloud)
 - Archiving & File Backup (BackBlaze)
- All rely on speed and no “blips” in service



External Uses

- Internal uses are invisible to the outside world
- External uses - new ways of producing and presenting programs
- Take it away, Roland!



Expands live programming opportunities

- Live stream over YouTube from anywhere with adequate upload speeds
- Combined with Google Apps for Nonprofits
- Recent example: Temple Grandin lecture at Landmark College
- Link created two weeks earlier and publicized [video]

Consumer-level equipment in the field:

- Elgato Game Capture HD Game Recorder
- Mac/PC laptop with GameCapture software
- HDMI cable
- HD camcorder



Consumer gear in the rack:



- Sony SMP-N200 Streaming Media Player
- Control with smartphone app
- Serves as SD down-converter



Switch Server to Internet Stream

Firefox File Edit View History Bookmarks Tools Window Help

207.136.201.82:3000/schedule/switch/create_switch?return_to=http%3A%2F%2F207.136.201.82%3A3000%2Fschedule%2Fmain

TelVue Princeton™ - B3200 Health: OK Monday, Oct 06, 2014 18:15:55 EDT PSG Admin, Logout

Dashboard Content Tasks Record Programming Program Guide Reports Config

Schedule Switch Event

Port Settings

A/V Source: Internet Stream (12)

Destination: Channel 8 output (1)

Duration: 02 : 00 : 00



Input: Internet Stream
Output: Channel 8

Date & Time

Start: 10/23/2014

Time: : :

Status: PENDING

Switch Immediately

Cancel Conflicting Events

Optional Recurrence

Days Of The Week: Su M T W Th F Sa [None Daily](#)

Until Date: : :

Save Cancel



Disadvantages of IP streaming

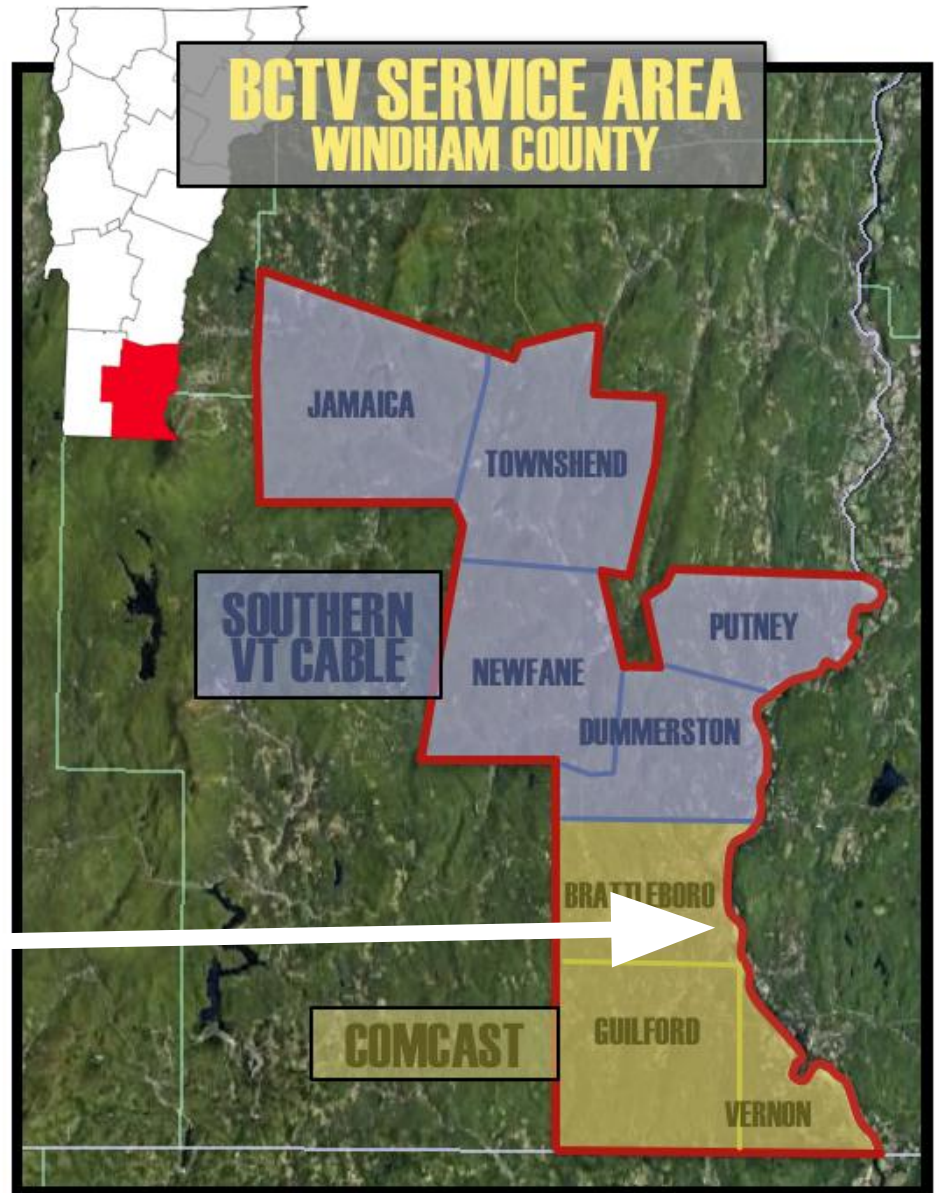
- YouTube post-recording processing glitch
- Copyrighted music will get flagged
- Dependent on adequate upload speeds - limited locations

Compare to: cable drops - what's not to like?



Cable Drops

- Limited locations
- Not spread out through service territory



Picture quality downgrade



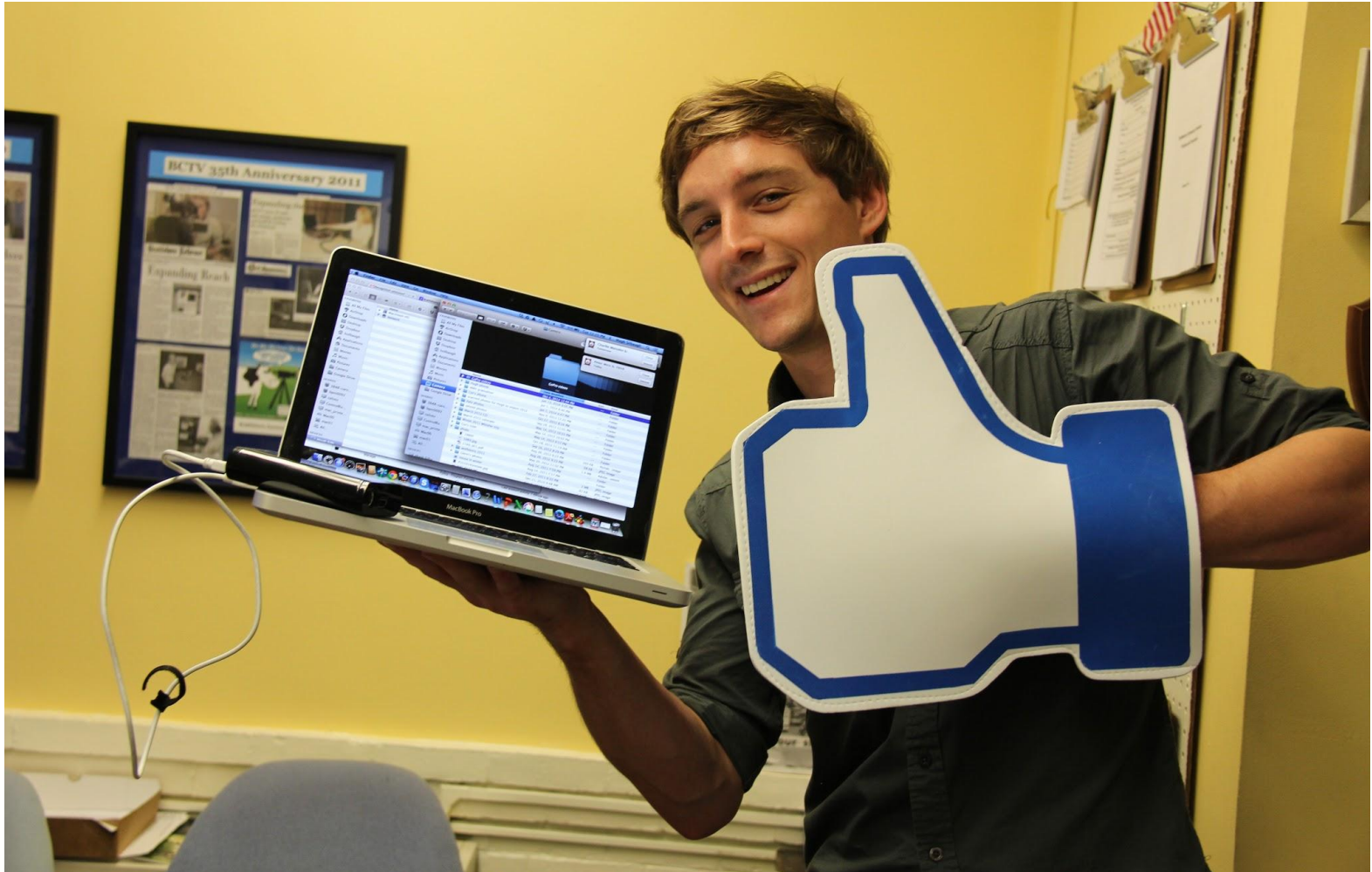
Difficult to adjust



Pain to haul around



Compare to web technology - not limited to staff productions



Enhances presentations

- Many productions incorporate web-reliant elements: Skype, Google Hangouts
- Image quality reliant on internet speed
- PowerPoint presentations common but not “made for TV”
- Use Google Apps Toolbox to enhance [screencast]

And the point is...

- Cable access is “evolving” with the ability of high-speed internet to deliver:
 - More efficient workflows
 - Live programming unrestricted by cable drops and equipment
 - Broadcast quality web-based programming
 - Everything is moving in this direction



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