Don’t Worry; Be Happy!
the 2nd-Screen 4K IP 2014 NAB Show
vs.
the Real World

Mark Schubin, SchubinCafe.com,
(who has visited every booth at every NAB show since 1973)
NAB Patriots Fly Russian MIGs
A Couple of Questions:

- Should unclothed women be used to sell equipment at the NAB Show?
  - No!

- Do unclothed women attract an audience of buyers at the NAB Show?
  - The scenario: Atomos held a daily raffle, which drew a crowd. After the crowd had gathered and was driven into a frenzy, an unclothed (but painted) woman emerged to draw the winning tickets. Then, after the raffle, she was available for photos.
CES 2014 NEWS

CES 2014: Second screen users shun live TV sync

Editor | 11-01-2014

Research from the US Consumer Electronics Association (CEA) and National Association of Television Broadcasters have some way to go to fully realise the potential of second screen services.
Second-Screen DVR

- Nielsen 3Q13 monthly viewing:
  - “traditional” TV - 152:08
  - time-shifted TV - 12:31
  

- eMarketer: 15%-17% did real-time socializing about TV shows
  
  [ eMarketer](http://www.emarketer.com/Article/Exploring-Social-TV-Viewing-Phenomenon/1010286)

- ~1.2% of audience time for a social-media DVR (so far)
  - 7.6% of time x 16% of audience
Distractions Aren’t New
think that’s the case. I think Aereo and the FCC increasingly will be irrelevant because the Internet is modifying behavioral models faster than any institution can keep up with, much less harness. That includes government, businesses and private investors.
Broadcasting is Dead. Long Live Digital Choice
Broadcasting is Dead. Long Live Digital Choice

March 1997
CBS Posts 6% Gain in Profit, Benefiting From Showtime

The New York Times, May 9, 2014

Cable Fees And Football Help Profits Climb at Fox


All the Way to 2032, Come What May

NBC’s Olympic deal covers whatever technology develops.

The New York Times, May 9, 2014

30% increase in ad revenue

Plain TV Continues to Be Strong

THE TELEVISION VIEWER WILL NOT BE REVOLUTIONIZED
- Another record audience* for the Super Bowl
  [*depending on how the numbers are counted]
  - average 111.5M U.S. TV viewers
    (115.3M for the half-time show)
  - live stream most-ever for sports: avg. 0.528M (<0.5% of TV viewers)
    - up 4% over 2013; average duration of 48 minutes up 25%
  - stadium blacked out lest it crash the stream
- Verizon Wireless served 1.9 TB in MetLife Stadium that night (AT&T 119GB 5-6 pm)
  - 6 hours = 21,600 seconds peak
  - 1.9 TB/21,600 seconds ≈ 700 Mbps
  - 700 Mbps/80,000 fans ≈ 8kbps/fan (w/other carriers 12kbps?)

monthly viewing:
- traditional - 152:08
- time-shift - 12:31
- I-net vids - 6:20

\[
\begin{align*}
\text{traditional} & : 152:08 \\
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\text{I-net vids} & : 6:20 \\
\end{align*}
\]
“Antenna” Digital TV: When All Else Fails...

February 10, 2014 | Filed under: Display Daily, Subscription News | No Comment

by: Pete Putman

Broadcast & Distribution - As I write this, it’s Saturday afternoon, and four days since a big ice storm hammered southeastern Pennsylvania, leaving hundreds of thousands of homes in the dark – no electricity, no cable, no Internet – and a real mess for PECO (our electric utility) to clean up.

We awoke last Tuesday morning to see a coating of ice over several inches of snow that fell two days before. Roads were largely impassable, snapped tree limbs were laying everywhere, and the sound of generators created a racket not unlike the crickets of late summer.

Our power went out for 18 hours, starting at noon Tuesday. (Some nearby tree finally gave up the good fight...
Broadcast Via Antenna

- Nielsen: 11.2M U.S. antenna HHs
  - up slightly from 2012
- GfK: 22.4M U.S. antenna HHs
  - 19.3%, up from 17.8% in 2012, 14% in 2010
  - 19.3% or maybe 15% or even 13% (don’t go by numbers)

http://blog.gfk.com/blog/2013/06/17/confessions-of-a-cord-cutter-skeptic-revisited/

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<tr>
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<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Broadcast Only</td>
<td>11,183</td>
<td>11,117</td>
</tr>
<tr>
<td>Wired Cable</td>
<td>56,123</td>
<td>58,469</td>
</tr>
<tr>
<td>Telco</td>
<td>11,581</td>
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</tr>
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<td>35,110</td>
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Nielsen Cross-Platform Report
figures in thousands
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The number of US household subscribing to pay-TV services surged in the first quarter, as the increasingly resilient cable segment moderated its customer loses, according to IHS Technology.
**Current Viewing Habits**

TV networks still enjoy a significant lead when it comes to adults who watched in the past 30 days. But scores are much lower among 18-34-year-olds.

### Streaming Viewer

<table>
<thead>
<tr>
<th>Service</th>
<th>Score</th>
<th>Previous</th>
<th>18-34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netflix</td>
<td>32.3</td>
<td>29.2</td>
<td>38.9</td>
</tr>
<tr>
<td>Amazon Instant Video/Prime Instant Video</td>
<td>23.6</td>
<td></td>
<td>24.2</td>
</tr>
<tr>
<td>Hulu Plus</td>
<td>9.3</td>
<td>10.1</td>
<td>12.0</td>
</tr>
<tr>
<td>Redbox Instant by Verizon</td>
<td>5.7</td>
<td></td>
<td>8.6</td>
</tr>
<tr>
<td>History Channel</td>
<td>4.0</td>
<td>4.0</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Netflix was the only streaming service to increase customers during this period, while the other services stayed flat or dropped.

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**AdWeek, April 29, 2014**

Brand Awareness

“Awareness,” in YouGov parlance, refers to whether the individuals surveyed had heard something about the brand in the past two weeks.

**Streaming Awareness**

Amazon’s awareness score was the only one to significantly increase. While Netflix still has the greatest awareness levels and current customers, this shift means more people are becoming acquainted with Prime.

**Network Awareness**

The top four broadcast nets and HBO all have awareness levels above 90%. Because HBO is not free, it’s more of a feat to have this level of awareness. Often, marquee or tent-pole events—Game of Thrones, anyone?—generate a lot of free publicity and can boost this number.
FILM IS DEAD

#1 movie of 2013
(Also #s 5 & 9)

http://chrisreedfilm.com/2012/11/03/film-is-dead-long-live-film/

Cintel Film Scanner
Re-scan film for Ultra HD! New real-time film scanner lets you transfer 35mm and 16mm film via Thunderbolt 2 at full Ultra HD resolution!

$29,995 ULTRAHD THUNDERBOLT.
pioneers are ones with arrows in their backs

1st 1125-line HDTV camera in the U.S.: 1973
  - I used it then

S3DTV?

U.S. teletext?

D6?

NAB 2014
The Bible Guarantees It

Judgment Day
May 21, 2011

...Cry mightily unto God

Mon - Fri Live Open Forum
7:30 - 9 PM FamilyRadio.com

Jonah 3:8
That was awkward.

“No one knows the day or the hour…”
Matthew 24:36
That Said...
Ross openTruck Initiative
Truck on a Chip

same size
Don’t Move Production Staff Around

NBC Olympics Control Room
Stamford, Connecticut

SVS Switcher Control Surface
used at IBC Amsterdam with
electronics in Germany

not at NAB
Why a Poster?

4 units: 60,000²(!) distributed routing
Coax Still Works

Altera 12G-SDI demo over 60’ of coax

Belden at HPA Tech Retreat: even longer

photo by Peter Putman
Acquisition: Sound

Countryman continued to show scenes from the 2010 “Live From Lincoln Center” South Pacific
Acquisition: Lighting

from Mike Wagner’s ARRI presentation on LED lighting
FloLight CycLight

3 40w LED
Acquisition: Lenses

Schneider iPro

Now Available for Galaxy S4
ARRI PL-Mount Wide Zoom

1.9x4.1 mm
2/3” equivalent
PL vs. B4: Two New Fujinon Lenses

PL: Cabrio Premier 25-300
B4 2/3” equivalent: 12x9.8 (117)

PL S35 equivalent: ~14-254
B4: 18x5.5 (99)
What About Long Zooms?

B4: XA99x8.4
PL S35 equivalent: 
~22-2132
(designed for HD)

if perfect, 
~2.6-stop light loss 
(said to compensate for different color depths)

for Sony cameras in crop mode (less loss)
Lens Mounting Reference Surface
Final Lens Surface

Green CCD Image Plane

Camera Beam Splitting Block

Back Focus

Flange Back 48mm

Camera Reference Focus Plane

BTA S-1005-A
International
2/3-Inch B4
HDTV Standard

5µ
10µ

not to scale

courtesy of Larry Thorpe
Canon USA

Mark Schubin, SMPTE DC, NAB 2014 May 21
focus

variator (zoom)

compensator (maintain focus)

relay

seven elements
Acquisition: Cameras

- shoulder mount
- PL lens mount
- rosette
- rods
- Vocas wooden hand grip

The year the camera companies discovered that we have a f***ing shoulder

www.facebook.com/directordefotografia
Differences

- sensor size
  - imager widths: BMD 15.8, FF 36
  - DoF/imager size
- resolution: “4K”
- connections
- coding
- file type
- metadata
- storage

Small portion of AbelCine chart of fields of view; yellow is S35 film; blue is camera sensor.
"We Kill People Based on Metadata"

Former National Security Agency (NSA) and Central Intelligence Agency (CIA) Director General Michael V. Hayden

(portion of image from Reuters/Larry Downing)