Vodcasting for Everyone*

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(*) iPod optional
pod•cast

n. [backronym] P(ersonal) O(n) D(emand) (broad)CAST
vod • cast

n. (1) stylish contraction for “video podcast”
(2) the next revolution in multimedia delivery to the public
(3) visual content virtually anyone here can produce
TV 3.0: Catch-Phrase for “New Markets”

- TV 1.0
  - Big networks (~3)
  - Linear scheduling
- TV 2.0
  - Niche networks (hundreds)
  - Time-delay: VCR, DVR
- TV 3.0
  - “Shows” (multitudes)
  - On demand
  - Home or mobile viewing
Why Vodcast?

• Good Stories
• Astronomy is Beautiful
• Digital Distribution
• Not Hard to Produce
• Growing Subscriber Base
TODAY'S TOP PODCASTS

1. Hidden Universe HD: NASA's Spitzer Science Center
   - Category: Natural Sciences
   - Free
   - SUBSCRIBE

2. This American Life
   - Category: Society & Culture
   - Free
   - SUBSCRIBE

3. Best of YouTube (Podcast)
   - Category: Comedy
   - Free
   - SUBSCRIBE

4. Beautiful Places
   - Category: Places & Travel
   - Free
   - SUBSCRIBE

5. NPR: Fresh Air
   - Category: Society & Culture
   - Free
   - SUBSCRIBE

6. Real Time with...HBO
   - Category: News & Politics
   - Free
   - SUBSCRIBE

7. Car Talk
   - Category: Performing Arts
   - Free
   - SUBSCRIBE

8. Flight of the Conchords
   - Category: Comedy
   - Free
   - SUBSCRIBE

9. Comedy Central: Stand-Up
   - Category: Comedy
   - Free
   - SUBSCRIBE

10. 60-Second Psych
    - Category: Social Sciences
    - Free
    - SUBSCRIBE

11. Wait Wait...Don't Tell Me!
    - Category: Games & Hobbies
    - Free
    - SUBSCRIBE

12. The New Yorker: Fiction
    - Category: Arts
    - Free
    - SUBSCRIBE

13. Pardon Interruption
    - Category: Sports & Recreation
    - Free
    - SUBSCRIBE

14. Sesame Street
    - Category: Kids & Family
    - Free
    - SUBSCRIBE

15. The Onion Radio News
    - Category: Comedy
    - Free
    - SUBSCRIBE
The Bottom Line

Hubblecasts distributed per month

- March '07: 0
- April '07: 0
- May '07: 50,000
- June '07: 50,000
- July '07: 100,000
- August '07: 150,000
- September '07: 300,000
Hubblecast

- ESA’s Hubble Education and Outreach group at ST-ECF
- Started March 2007
- Latest news & images from Hubble Space Telescope
- Graphical “look”: logo, studio etc.
- Host was cast from 10 diverse candidates
  - ESO astronomer Dr. Joe Liske is “Dr. J”
  - Now receives daily fan mail on his MySpace page!
- Production time: ~5 days/episode
- 3 Channels: Standard def. (SD), HD (720p), Full HD (1080p)
Hidden Universe

- Focus is science, not human interest
- Showcase: Mini-documentary (~5 min)
  - Rich visuals, host & interview segments
  - Production time: 5-6 days
- Gallery Explorer: Image pan and scan (~2 min)
  - Just one image/theme
  - 5-7 caption overlays
  - Production time: < 1 day
- **New** “El Universo Escondido”
  - Spanish-language version of “Gallery Explorer”
Identify Your Visual Assets
Visual Assets: Still Images

- Astronomy is beautiful!
- Images and art both useful
- Motion adds interest
  - “Ken Burns” effect
- Zooms/pans for large images
Visual Assets: Animations

- Broadcast-quality video increasingly available
  - 3D animations
  - Simulations
- Simple motion graphics
  - Animating multiple images
  - Break diagrams into segments to focus attention
Visual Assets: Hosts

- A host can give a show its "identity"
- More personal than just voiceover
- Bridges gaps between visual assets
- Match the host to the tone
  - Authoritative
  - Casual
  - Funny
Visual Assets: Interviews

- Access to researchers is valuable
- Brings a personal angle to the science result
- Scientists can do part of your work in writing the script
- Should screen for ability to present material
Production Overview

- **Preproduction**
  - Selecting a style.
  - Identify available assets.
  - Script writing (timing!).
  - Casting a host (if needed).

- **Production**
  - Filming.
  - Audio recording.

- **Post-production**
  - Green screening/keying.
  - Scientist interviews.
  - Music.
  - Video editing.
  - Encoding.
  - Distribution.
The Script

- Intended audience
  - Kids?
  - General public?
  - Informed public?

- Source material
  - Adapt from existing story/release (easy)
  - Innovate a new idea (harder)
  - Traditional News Criteria
Editing & Compositing

- Computer & video card
- Editing Solutions
  - iMovie HD (Mac)
  - Final Cut Express
  - Avid Express
  - Final Cut Pro (Mac)
  - Premiere Pro
- Compositing/Effects
  - After Effects
  - Motion (Mac)
Greenscreen Basics
Judge Me by My Size?
Image Sizes & Frame Rates

- **Aspect ratio**
  - 4:3 = 1.33 / Traditional broadcast
  - 16:9 = 1.78 / HD

- **Frame rate**
  - 25 (PAL-zone)
  - 24 (film)
  - 29.97 (NTSC zone)

- **Progressive/interlaced: Film vs. TV**
  - Avoid interlacing whenever possible!
Video Compression Formats

• Primary podcast format
  • H.264 (MPEG4 part 10)
    • iPod: 640 x 480, 30 fps (max)
    • AppleTV: 1280 x 720, 25 fps (max)
• Can support other common formats...
• Batch compressors
Distribution

• iTunes Music Store is your main distributor
  • It (mostly) created vodcast market
  • Indexes feeds by reading XML RSS feed
  • iTunes acts as aggregator
    • Locally downloads episodes as available
• YouTube, DailyMotion, blip.tv, veoh
  • On demand, instant gratification
  • Lower quality
To HD or Not to HD?

- HD production takes more time, better equipment
- HD downloads: about 200 MB for 6 minutes!
- Where can you watch HD video?
  - Computer monitors
  - HDTV/Media Centers
- Is there an audience?
Hidden Universe Standard Definition Downloads (Monthly Totals)

Total Downloads to date: 162,297

Individual Episode Totals: 6,000 to 50,000

HD Podcasts Began
Hidden Universe HD Downloads
(Monthly Totals)

Total HD Downloads to date: 472,982

Individual Episode Totals: 6,000 to 50,000
Summary

- Vodcasting can revolutionize your visibility
- HD - worth the effort
- Early adoption
- Additional vehicle for your messages