

3D In The Home

Brian Markwaller
VP, Technology & Standards
Consumer Electronics Association
30 April 2009



www.CE.org

Producer of



3D Gaining Momentum

17+ Feature Films Set for 2009

My Bloody Valentine 3-D

Coraline

Jonas Brothers' "Burning Up" 3D Concert Movie

Monsters vs. Aliens

Up

Ice Age

Final Destination: Death Trip 3D

Cloudy With A Chance Of Meatballs

Toy Story (Oct 2nd, 2009)

Halloween 3D

Disney's A Christmas Carol

Planet 51

Avatar

Frankenweenie

The Magic Tale

The Dark Country

Games

\$10B+ in 2008 for games alone

\$40B including hardware/online

3D @ CES 2009

Mitsubishi

LG

NEC

Samsung

Sony

Panasonic

Intel

Philips

Dolby

RealD

TDVision ...



www.CE.org

Producer of



3D Ready TVs

- Estimates of 2M 3D ready TVs shipped in US
- Mitsubishi DLP
- Samsung LCD
- Hyundai (autostereo)
- Plasma TVs too
- nVidia 3D kit



www.CE.org

Producer of



Other Activities

- HDMI announced that the next version will “handle” 3D, coming soon
- Blu-Ray suggested they are working on 3D but do not pre-announce
- 3D@Home consortium, more than 40 members promoting 3D video



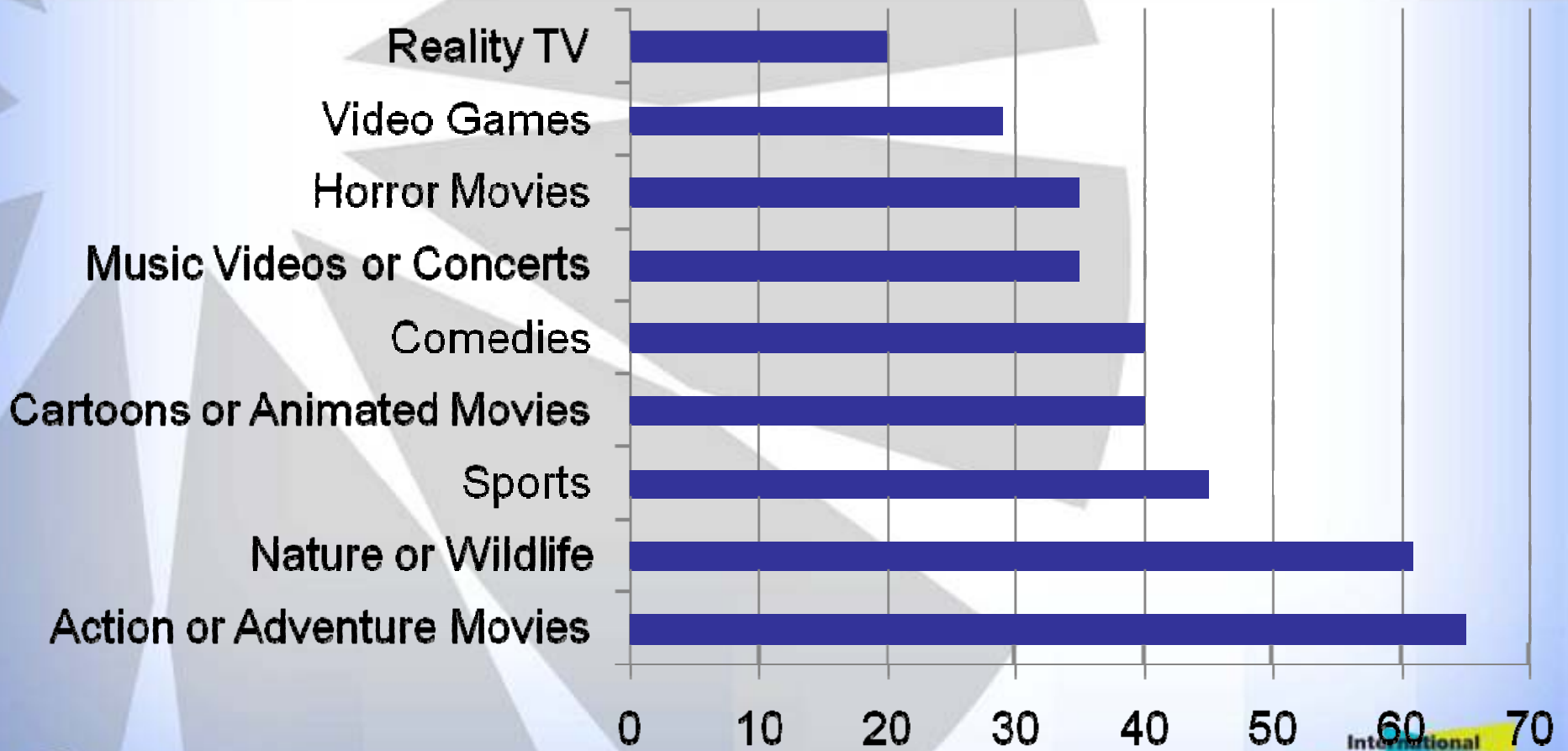
www.CE.org

Producer of



CEA Market Research

Percent Interested in 3D Genres



www.CE.org

Producer of



CEA Standards Activity

“Brainstorm” Topics from October 2008 CEA meeting

- Modify CEA-861-E to define carriage of uncompressed 3D signal
- Define terminology for 3D video
- Signaling metadata for 3D video
- Closed and/or open captioning for 3D video
- Broad specs for 3D (broadcast, cable, satellite, PC, gaming, etc.)
- Eyewear specifications
- On-screen display specifications
- Definitions for 3D audio (different speaker placement from non-3D)
- Mixed 2D/3D viewing
- Define class of interface for 3D consumer products
- Standard names for 3D video parameters

Resulted in formation of CEA’s 3D Task Force



www.CE.org

Producer of



Conclusions of CEA's 3D Task Force (to date)

1. The general scope of CEA's work should focus on the interfaces between consumer sources, sinks, repeaters, converters, and glasses. CEA should not address the selection or recommendation of a specific 3D encoding format for use in the content creation, production or distribution chain.



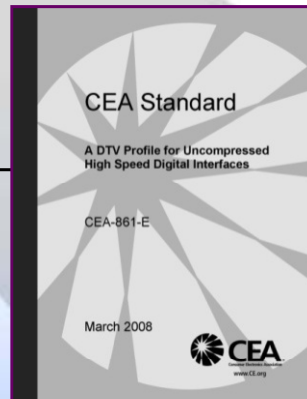
www.CE.org

Producer of



Conclusions of CEA's 3D Task Force (to date)

2. Extend CEA-861 to support the carriage of 3D content and bi-directional 3D format signaling. In order for sources and sinks to be interoperable, CEA will study the possibility of whether there can be at least one mandatory 3D content signal format required of sources and sinks for "3D-READY" products.



HDMI



Producer of



Conclusions of CEA's 3D Task Force (to date)

3. Investigate the development of standards for 3D glasses including interface, signaling, setup, control and polarization.



www.CE.org

Producer of



Conclusions of CEA's 3D Task Force (to date)

4. Investigate the need to document terminology that conveys interoperability to the consumer.



www.CE.org

Producer of



Next Steps

- Present these conclusions to CEA's Video Systems Committee, May 12th in St. Louis.
- Ask to start a project to update CEA-861 to carry 3D content.
- Continue defining other areas (glasses, terminology) to be able to scope out specific standards projects.



www.CE.org

Producer of



Coming Up

3D Techzone at International CES, January 2010



www.CE.org

Producer of

